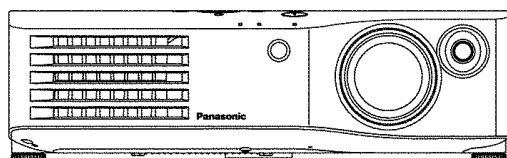


Service Manual

LCD Projector

PT-AX200U
PT-AX200E



Panasonic

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The service technician is required to read and follow the "Safety Precautions" and "Important Safety Notice" in this service manual.

Specifications

Power supply:

100 V - 240 V AC, 50 Hz / 60 Hz

Power consumption:

290W [During standby (when fan is stopped):

Approx. 0.08 W]

Amps:

3.5 A - 1.5 A

LCD panel:

Panel size (diagonal): 0.7 type (17.78 mm)

Aspect ratio: 16:9

Display method: 3 transparent LCD panels (RGB)

Drive method: Active matrix method

Pixels: 921 600 (1 280 × 720) × 3 panels

Lens:

Manual zoom (2x) / Manual focus

F 1.9 - 3.1, f 21.7 mm - 43.1 mm

Lamp:

UHM lamp (220 W)

Luminosity:

2 000 lm

Scanning frequency (for RGB signals):

Horizontal scanning frequency: 30 kHz - 70 kHz

Vertical scanning frequency: 50 Hz - 87 Hz

Dot clock frequency: 150 MHz or less

COMPONENT (YPbPr) signals:

525i (480i), 525p (480p), 625i (576i), 625p (576p),

1 125 (1 080)/60i, 1 125 (1 080)/50i, 1 125 (1 080)/24p,

750 (720)/60p, 750 (720)/50p, 1 125 (1 080)/50p,

1 125 (1 080)/60p

Color system:

7 (NTSC / NTSC 4.43 / PAL / PAL-M / PAL-N / PAL60/ SECAM)

Projection size:

1 016 mm - 5 080 mm

Throw distance:

1.2 m - 12.4 m

Screen aspect ratio:

16:9

Installation:

FRONT/DESK, FRONT/CEILING, REAR/DESK,

REAR/CEILING (Menu selection method)

Connectors:

S-VIDEO IN: Single-line, Mini DIN 4-pin

Y 1.0 V [p-p], C 0.286 V [p-p], 75 Ω,

VIDEO IN: Single-line, RCA pin jack

1.0 V [p-p], 75 Ω

COMPUTER IN:

RGB: Single-line, D-sub HD 15-pin (female)

R.G.B: 0.7V [p-p], 75Ω

G.SYNC: 1.0 V [p-p], 75Ω

HD/SYNC: TTL high impedance, automatic positive/negative polarity compatible

VD: TTL high impedance, automatic positive/negative polarity compatible

COMPONENT IN :

Y, Pb/Cb, Pr/Cr: Single-line, RCA pin jack × 3

Y: 1.0 V [p-p] (Including sync), 75Ω

Pb/Cb, (Pr/Cr): 0.7 V [p-p], 75Ω

HDMI IN : Dual-line, 19-pin HDMI connector

SERIAL: DIN 8-pin RS-232C compatible

Cabinet:

Molded plastic (PC + ABS)

Dimensions:

Width: 395 mm

Height: 112 mm

Length: 300 mm (Not including lens)

Weight:

4.9 kg

Operating environment:

Temperature: 0° C - 40° C

(When "ALTITUDE" is set to "HIGH": 0° C - 35° C)

Humidity: 20 % - 80 % (no condensation)

Certifications:

PT-AX200U: UL60950-1, C-UL, FCC Class B, ICES-003

PT-AX200E: EN60950-1, EN55022, EN61000-3-2,

EN61000-3-3, EN55024

<Remote control unit>

Power supply:

3 V DC (AA battery × 2)

Operating range:

Approx. 7 m

(when operated directly in front of signal receptor)

Weight:

125 g (including batteries)

Dimensions:

Width: 48 mm

Height: 28.35 mm (Not including projecting parts)

Length: 138 mm

Accessories:

Remote control unit (N2QAYB000194): 1

AA batteries for remote control unit (× 2): 1

Power cord: **PT-AX200U:** K2CG3FR00001 1

(3 m) **PT-AX200E:** K2CT3FR00003 (U.K) 1

K2CM3FR00002 1

(continental)

Options:

Ceiling bracket: ET-PKX200

Projection Screen: ET-SRW90CC

Cables: ET-SC10CP

(RCA pin jack x 3 - RCA pin jack x 3)

ET-SC10DT

(RCA pin jack x 3 - D-Terminal)

Serial adapter: ET-ADSER

(DIN 8-pin/D-sub 9-pin)

• Specifications are subject to change without notice.

• Weight and dimensions shown are approximate.

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Trademark Acknowledgements

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 - S-VGA is a registered trademark of the Video Electronics Standards Association.
 - HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
 - The font used in the on-screen displays is a Ricoh bitmap font, which is manufactured and sold by Ricoh Company, Ltd.
- All other trademarks are the property of the various trademark owners.

Precaution

If using this projector at high elevations (above 1 400 m), set the ALTITUDE to HIGH. (Refer to "Option settings" in Operating Instructions.)

Failure to observe this may cause malfunctions.

Never use this projector at an elevation of 2 700 m or higher.

Using this projector at high elevations, consult your dealer or Authorized Service Center about preparations.

Note

This projector has the demonstration mode that aims at the effect of the display in the shop. When Panasonic logo and the model name (PT-AX200*) are displayed, and they go round the four corners of the screen while slowly blinking, the projector is in the demonstration mode. If it is in the demonstration mode, cancel it before returning the customer the projector by the following methods.

Press "RETURN" button on the main unit or remote control unit 3 seconds or longer.

About lead free solder (PbF)

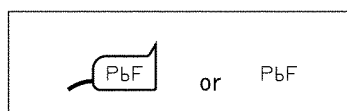
This projector is using the P.C.Board which applies lead free solder. The use of lead free solder is recommended from the standpoint of antipollution for the global environment in service.

Notes:

- Lead free solder: Sn-Ag-Cu (tin, silver and copper) has a higher melting point (approx. 217°C) than standard solder. Typically, the melting point is 30°C to 40°C higher. When servicing, use a high temperature soldering iron with temperature limitation function and set it to 370±10°C.
- Be precautions about lead free solder: Sn-Ag-Cu (tin, silver and copper) will tend to splash when heated too high (approx. 600°C or higher).
- Use lead free solder for the P.C.Board (specified on it as "PbF") which uses lead free solder. (When you unavoidably use lead solder, use lead solder after removing lead free solder. Or be sure to heat the lead free solder until it melts completely, before applying lead solder.)
- After soldering to double layered P.C.Boards, check the component side for excess solder which may flow onto the opposite side.

About the identification of the lead free solder P.C.Board

For the P.C.Board which applies lead free solder, the symbol as shown in the figure below is printed or stamped on the surface or the back of P.C.Board.



For US

IMPORTANT SAFETY NOTICE

There are special parts used in Panasonic LCD Projectors which are important for safety. These parts are shaded on the schematic diagram. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of PANASONIC BROADCAST & TELEVISION SYSTEMS COMPANY.

WARNING:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Any unauthorized changes or modifications to this equipment will void the users authority to operate.

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1 Safety Precautions

1.1. General Guidelines

- For continued safety, no modification of any circuit must be attempted.
- Unplug the power cord from the power outlet before disassembling this projector.
- Use correctly the supplied power cord and must ground it.
- It is advisable to use an isolation transformer in the AC power line before the service.
- Be careful not to touch the rotation part (cooling fan, etc.) of this projector when you service with the upper case removed and the power supply turned ON.
- Observe the original lead dress during the service. If a short circuit is found, replace all the parts overheated or damaged by the short circuit.
- After the service, all the protective devices such as insulation barriers, insulation papers, shields, and isolation R-C combinations must be properly installed.
- After the service, check the leakage current to prevent the customer from getting an electric shock.

1.2. Leakage Current Check

1. Prepare the measuring circuit as shown in Fig.1.

Be sure to use a voltmeter having the performance described in Table 1.

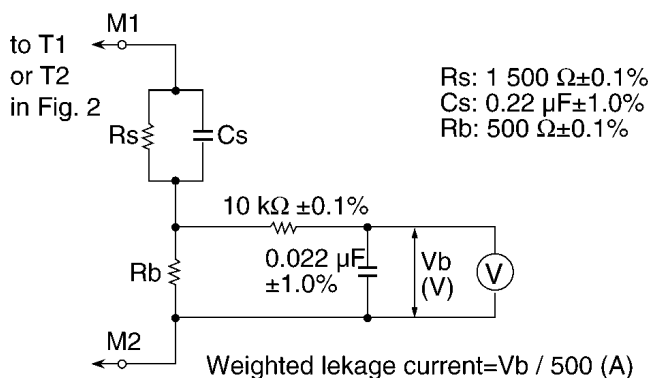


Fig. 1

	Performance
Voltmeter (rms reading)	Accuracy: $\leq 2\%$
	Input resistance: $\geq 1 \text{ M}\Omega$
	Input capacitance: $\leq 200 \text{ pF}$
	Frequency range: 15 Hz to 1 MHz

Table 1

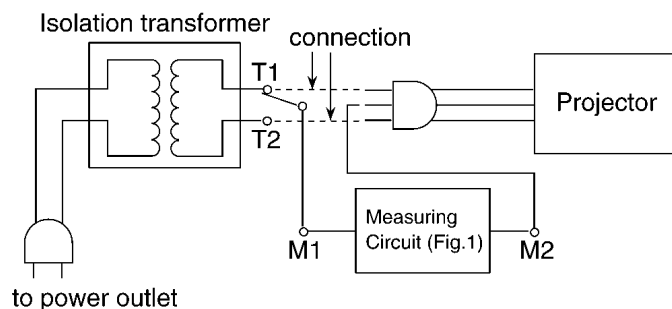


Fig. 2

2. Assemble the circuit as shown in Fig. 2. Plug the power cord in a power outlet.
3. Connect M1 to T1 according to Fig. 2 and measure the voltage.
4. Change the connection of M1 from T1 to T2 and measure the voltage again.
5. The voltmeter must read 0.375 V or lower in both of steps 3 and 4. This means that the current must be 0.75 mA or less.
6. If the reading is out of the above standard, the projector must be repaired and rechecked before returning to the customer because of a possibility of an electric shock.

1.3. UV Precaution and UHM Lamp Precautions

- Be sure to unplug the power cord from the power outlet when replacing the lamp.
- Because the lamp reaches a very high temperature during its operation, wait until it cools completely when replacing the Lamp Unit.
- The lamp emits small amounts of UV-radiation, avoid direct-eye contact with the light.
- The lamp unit has high internal pressure. If improperly handled, explosion might result.
- Because the high pressure lamp involves a risk of failure, never touch the lamp wire lead during the service. (See Fig. 3)

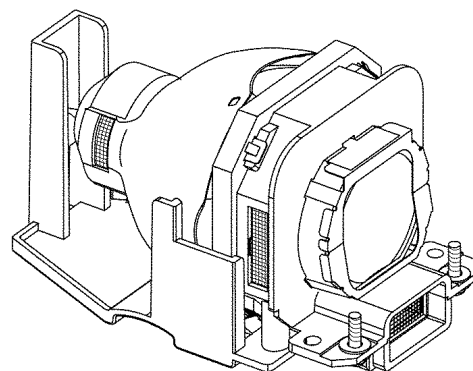


Fig.3

2 Ext Option

This projector has EXT OPTION in addition to standard on-screen menus.

- There are SELF CHECK and FLICKER ADJUST for service, etc.

2.1. Procedure to enter EXT OPTION

1. When the projector is power ON, press "POWER" button on the main unit or remote control unit to display "POWER OFF" confirmation screen.
2. Press the right-arrow " ► " button to select "CANCEL" in the "POWER OFF" confirmation screen.
3. On the main unit or remote control unit, press the buttons in order of up-arrow " ▲ ", down-arrow " ▼ ", up-arrow " ▲ ", down-arrow " ▼ " and "ENTER".

(When the "ENTER" button is pressed, "EXT OPTION" menu is displayed.)

2.2. EXT OPTION Menu and Functions

EXT OPTION	
FAN FULLMODE	OFF / ON
AUTO SETUP	NORMAL / SPECIAL
SELF CHECK	
FLICKER ADJUST	
525i SD	OFF / ON
525p OS	OFF / ON
HPLL	OFF / ON

• FAN FULLMODE

Setting the cooling fan motor rotation speed

- Switching ON "FAN FULLMODE", the rotation level of the fan becomes high-speed rotation (fixed). Moreover, when "FAN FULLMODE" is ON, changing "ALTITUDE" in OPTION becomes impossible (setting FAN FULLMODE is given priority more than ALTITUDE).

• AUTO SETUP

Setting AUTO SETUP mode

- NORMAL: To set the normal mode (the dot clock is adjusted strictly)
- SPECIAL: To set the special mode (the dot clock is adjusted roughly)

* Do not change the initial setting (NORMAL).

• SELF CHECK

To enter the self-check mode

• FLICKER ADJUST

To enter the flicker adjustment mode

• 525i SD

When non-standard signal of 525i/625i is inputted (AV amplifier, etc.), synchronization might be disordered according to connected equipment. In this case, set 525i SD to ON.

• 525p OS

When 525p/625p signal is inputted, reflection noise (vertical striated beat) might be generated according to connected equipment. In this case, set 525p OS to ON. However, the resolution decreases a little.

• HPLL

When non-standard signal of VIDEO/S-VIDEO is inputted (VTR, VHD, etc.), horizontal synchronization might be disordered according to connected equipment. In this case, set HPLL to OFF.

2.3. Canceling EXT OPTION

Press "MENU" button on the main unit or remote control unit.

3 Self-Check Mode

This mode is used to narrow down the location of the failure.

3.1. Procedure to enter the self-check mode

Select "SELF CHECK" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

3.2. Self Check Display and Contents

Display example

①	SELF CHECK	S/N SB*****	⑩
②	MM: 1.00 F: 1.00	IM: 1.00	
③	XGA 60		
④	H ***.***kHz	G SAVED OK	⑪
⑤	V ***.***Hz	U SAVED OK	⑫
⑥	IRIS OK	FAN OK	⑬
⑦	FAN1 OK	FAN2 OK	⑭
⑧	FAN3 OK	FAN4 OK	⑮
⑨	TEMP OK	LUMI ***	⑯
⑩	TEMP1 ***	TEMP1 ***	⑰
⑪	TEMP2 ***	TEMP2 ***	⑱
⑫	LAMP OK	2000H OK	⑲
⑬	TOTAL ****H	RESET ***	⑳
⑭	****H**	****	
⑮	****H**	****	
⑯	****H**	****	

* This display is an example and the display contents depend on the input signal mode.

- The result of items "G SAVED" and "U SAVED", "OK" is displayed for OK and "NG" is displayed for NG.
- The result of items "FAN", "FAN1", "FAN2", "FAN3", "FAN4", "TEMP", "LAMP" and "2000H", the OK display becomes red characters when shutting down because abnormality happened last time.

	Display Contents	Remarks
①	Microcomputer / FPGA / IRIS Control Microprocessor Software Version Display *1	Microcomputer (IC1010), FPGA (IC1005) and IRIS control microprocessor (IC1133) software versions are shown from the left.
②	Signal Name	Different display according to the input signal
③	Horizontal Signal Frequency	RGB or YPbPr (YCbCr) signal reception only
④	Vertical Signal Frequency	RGB or YPbPr (YCbCr) signal reception only
⑤	Iris Abnormality Check	It is distinguished whether the iris operates normally.
⑥	FAN1 Error Information	FAN1 (Power fan) Error
⑦	FAN3 Error Information	FAN3 (Intake fan) Error
⑧	Temperature Abnormality Check	Cause of Lamp Malfunction
⑨	Thermosensor 1 A/D conversion value (0 - 255) *2	Current temperature around the LCD panel
⑩	Thermosensor 2 A/D conversion value (0 - 255) *2	Current temperature around the air intake slot (Detects air filter's choke, etc.)
⑪	Lamp Abnormality Check	Cause of Lamp Malfunction
⑫	Total Usage Time	Projector Cumulative Usage Time
⑬	Lamp ON - Cumulative Usage Time / Frequency / Cumulative Usage Time	Current
⑭		Second
⑮		First
⑯	Product Serial Number	Displays the serial number of this projector.
⑰	Gamma Correction Data Check	It is distinguished whether gamma data is stored in the flash ROM.
⑱	Color Unevenness Correction Data Check	It is distinguished whether color unevenness correction data is stored in the flash ROM.
⑲	Fan Stop Check	Cause of Lamp Malfunction
⑳	FAN2 Error Information	FAN2 (Exhaust fan) Error
㉑	FAN4 Error Information	FAN4 (Lamp fan) Error
㉒	DAYLIGHT sensor A/D conversion value (0-1023)	Illuminance around the projector
㉓	Thermosensor 1 A/D conversion value (0 - 255) *2	Temperature around the LCD panel when the last thermal shutdown occurs
㉔	Thermosensor 2 A/D conversion value (0 - 255) *2	Temperature around the air intake slot when the last thermal shutdown occurs
㉕	Lamp - Judgment for Cumulative Usage more than 2 000 h *3	Judgment for Replacement Time of Lamp
㉖	Lamp - Reset Frequency of Cumulative Usage Time	Reset Frequency (0 - 255)

*1 FPGA (Field Programmable Gate Array)

LSI that is rewritable quickly while inspecting the program by system designer. (This will be able to reduce the development time.)

*2 When detected abnormal temperature (high temperature around the LCD panel, large difference between temperature at the air intake slot and temperature around the LCD panel), TEMP indicator turned on. If arriving at the critical temperature, the power supply will shut down automatically (thermal shutdown) and the indicator will flash.

*3 Warning of the lamp cumulative usage time and shutdown use the conversion time for 220 W.

3.3. Canceling the self-check mode

Press "MENU" button on the main unit or remote control unit.

4 Flicker Adjustment Mode

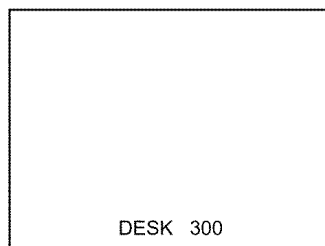
If replacing the optical parts (LCD Panel / LCD block) or A-P.C.Board of this projector, enter the flicker adjustment mode and minimize the flicker.

4.1. Procedure to enter the adjustment mode

Select "FLICKER ADJUST" on "EXT OPTION" menu and press "ENTER" button on the main unit or remote control unit.

Note:

"DESK setting (red)" is displayed when entering the adjustment mode.



Adjustment Display when DESK setting

4.2. Adjustment Display and Contents

- Setting value is increased and decreased with the right-arrow " ► " and left-arrow " ◀ " buttons.
 - " ◀ ": Decrease, " ► ": Increase
 - Adjust the setting value to minimize the flicker on the screen.
 - Execute the adjustment by 6 patterns below.
- The pattern (adjustment display) is switched with the up-arrow " ▲ " and down-arrow " ▼ " buttons.
 - " ▲ ": Forward direction, " ▼ ": Reverse direction
 - There are 6 patterns of "DESK setting (red)", "DESK setting (blue)", "DESK setting (green)", "CEILING setting (red)", "CEILING setting (blue)" and "CEILING setting (green)".
 - The setting value is saved into this projector when the pattern is switched.

4.3. Canceling the flicker adjustment mode

Press "MENU" button on the main unit or remote control unit.

Note:

When "MENU" button is pressed, the setting value at that time is saved into this projector and the adjustment mode is canceled.

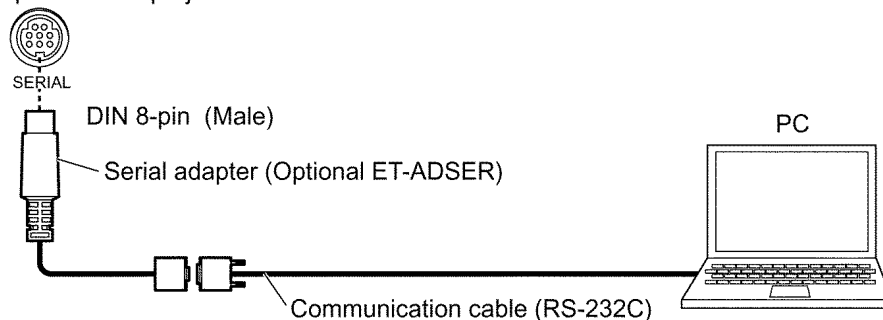
5 Using the SERIAL Connector

The serial connector which is on the back connector panel of the projector conforms to RS-232C standard. This projector can be controlled by a PC which is connected as shown in "5.1. Connection".

For controlling this projector by a PC, requires communication software on the market, and inputs control commands according to communication settings and basic format below.

5.1. Connection

Back connector panel of the projector

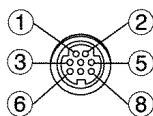


Note:

Use a proper communication cable which is suitable for the PC to connect the optional serial adapter, which is connected with SERIAL connector of this projector, and the PC.

5.2. Pin Layout and Signal Names for SERIAL Connector

DIN 8-pin (female)
seen from outside



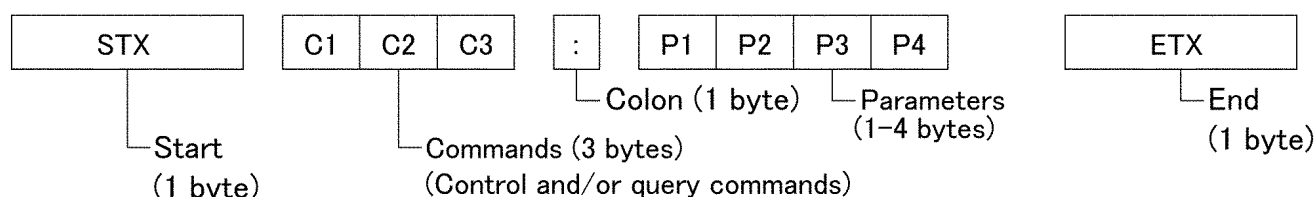
Pin No	Signal Name	Contents
3	RXD	Receive data
4	GND	Ground
5	TXD	Transmit data
1	---	Connected internally
2	---	
6	---	
7	---	NC
8	---	NC

5.3. Communication Settings

Signal Level	Conforms to RS-232C standard	Contents	Description
Sync. method		Asynchronous	Synchronizes every 1 character (8 bits)
Baud rate		9 600 bps	Data transfer speed
Parity		None	Error detection method
Character length		8 bits	Number of bit composing 1 character
Stop bit		1 bit	Uses stop bit when asynchronous method
X parameter		Not used	
S parameter		Not used	

5.4. Basic Format

The data sent from the PC to the projector is transmitted in the format shown below.



Notes:

- If sending multiple commands, check that a call back has been received from the projector for 1 command before sending the next command.
- When a command which does not require parameters is sent, the colon (:) is not required.

5.5. Control / Query Commands

Control Commands

Command Name (Parameter format is shown in <>)	Function / Contents	Call back from Projector (Parameter format is shown in <>)	Minimum Value of Parameter	Maximum Value of Parameter
PON *	POWER ON	PON	—	—
POF *	POWER OFF	POF	—	—
IIS : <input signal>	INPUT SELECT	IIS : <input signal>	—	—
OST	NORMAL	OST	—	—
OFZ : <off_on>	FREEZE	OFZ : <off_on>	0	1
OEN :	ENTER	OEN	—	—
VPM : <picture mode>	PICTURE MODE	VPM : <picture mode>	—	—
<NOR>	NORMAL	<NOR>	—	—
<DYN>	DYNAMIC	<DYN>	—	—
<CN1>	CINEMA1	<CN1>	—	—
<CN2>	CINEMA2	<CN2>	—	—
<VCN>	VIVID CINEMA	<VCN>	—	—
<GAM>	GAME	<GAM>	—	—
<NAT>	NATURAL	<NAT>	—	—
OMN	MENU	OMN	—	—
OCU	CURSOR UP	OCU	—	—
OCD	CURSOR DOWN	OCD	—	—
OCL	CURSOR LEFT	OCL	—	—
OCR	CURSOR RIGHT	OCR	—	—
OOT : <off_timer>	OFF TIMER	OOT : <off_timer>	0	7
OSH *	BLANK	OSH	—	—
OVM	PIC.MODE	OVM	—	—
VS1	ASPECT	VS1	—	—
OBK	RETURN	OBK	—	—

* Do not transmit the PON, POF and/or OSH commands continuously in a short time.
The lamp may be damaged and/or cause malfunctions.

Query Commands

Query Command	Contents	Call back from Projector (Parameter format is shown in < >)
QPW QIN QPM	POWER CONDITION INPUT SIGNAL PICTURE MODE	<power condition> <input signal> <NOR>=NORMAL <DYN>=DYNAMIC <CN1>=CINEMA1 <CN2>=CINEMA2 <VCN>=VIVID CINEMA <GAM>=GAME <NAT>=NATURAL
QFZ QOT QSH	FREEZE OFF TIMER BLANK	<off_on> <off_timer> <off_on>

Parameters

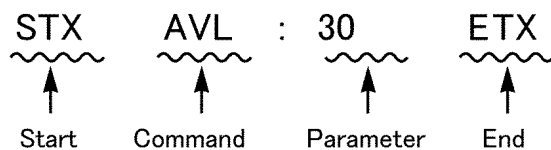
Parameter Format	Parameter Size (Byte)	Parameter Definition
<off_on>	1	0=OFF, 1=ON
<input signal>	3	VID = VIDEO, SVD = S-VIDEO, RG1 = COMPUTER, YUV = COMPONENT , HD1 = HDMI 1 , HD2 = HDMI 2
<power condition>	3	000=Power OFF, 001=Power ON
<off_timer>	1	0 = OFF, 1 = 60 min, 2 = 90 min, 3 = 120 min, 4 = 150 min, 5 = 180 min, 6 = 210 min, 7 = 240 min

* If an incorrect command is sent from the PC, the "ER401" command will be sent from the projector to the PC.

[Example]

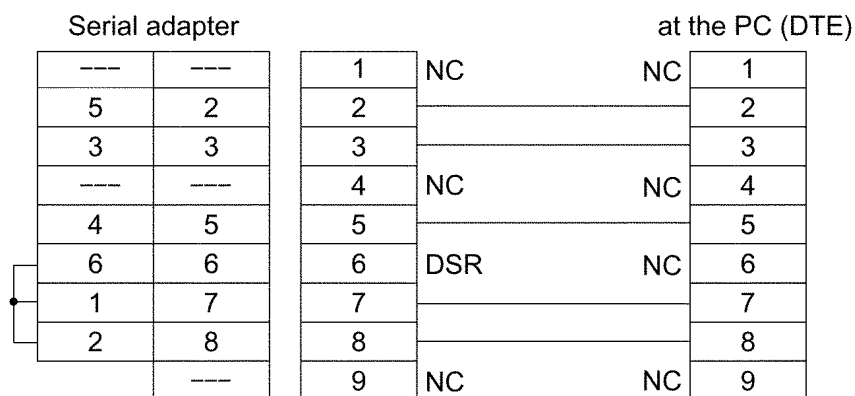
When controls the audio volume to +30 by a PC

(Sends commands as the following:)



- When a command which does not require parameters is sent, the colon (:) is not required.

5.6. Communication Cable Specifications



5.7. Signal Selector Connecting Cable Specifications

When connecting to a signal selector (ex. TW-SWS62J), use a cable with specifications below.

Connecting method: Connects a video signal cable from the signal selector to "VIDEO IN", and an RGB signal cable to "PC IN".

At the signal selector D-sub 9p (male)		At the serial adapter (DCE) D-sub 9p (male)		Serial adapter	
Signal Name	Pin No.	Pin No.	Signal Name	Pin No. (cable side)	Pin No. (projector side)
NC	1	1	NC	---	---
RD Receive data	2	2	SD Transmit data	2	5
SD Transmit data	3	3	RD Receive data	3	3
NC	4	4	NC	---	---
GND Ground	5	5	GND Ground	5	4
NC	6	6	DSR	6	6
RS Transmit request	7	7	CS Transmit permission	7	1
CS Transmit permission	8	8	RS Transmit request	8	2
NC	9	9	NC	---	

Note:

Set VP control terminal switch of the signal selector to VP TYPE "B".

6 Disassembly Instructions

Warning:

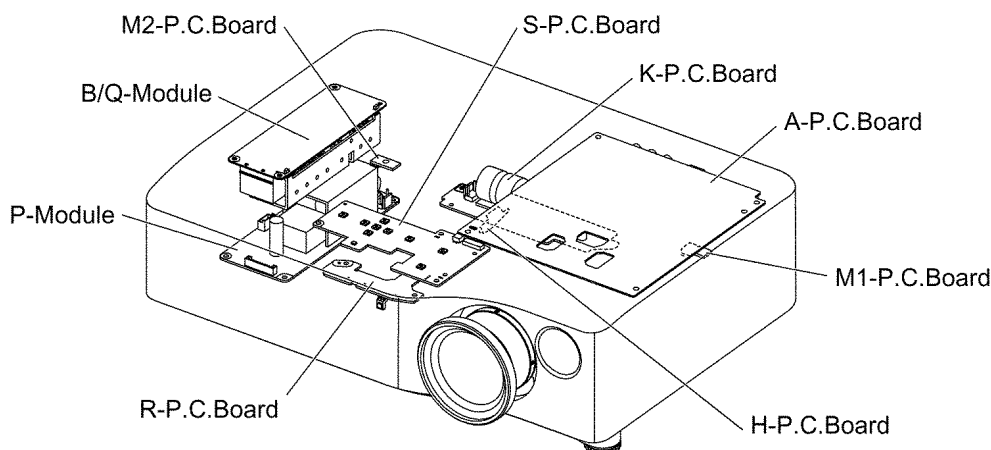
- Be sure to unplug the power cord from the power outlet before disassembling this projector.

Caution:

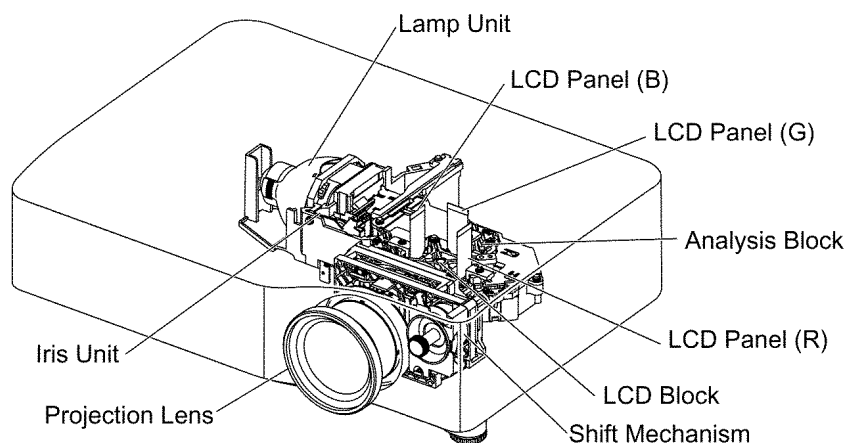
- While turning over a printed circuit board, be sure to put a insulating material under it to prevent a short circuit.
 - Printed circuit boards and wires must not be pulled forcibly, but be handled carefully.
 - Connectors also must be handled carefully.
 - When reassembling, replace used adhesive tape with new one (Do not re-use used tape).
 - After repairing this projector, be sure to put back the wires and connectors to the original condition.
 - Service or repair the product according to service information on the service manual, etc. so that a fire, injury or electric shock caused by an improper repair may not occur.
1. Do not modify equipments, components and materials when attempting to service or repair.
 2. Do not repair nor connect wires even in case of a part of the disconnection when the wiring unit is supplied as a replacement parts, replace the wiring unit (complete).
 3. For a fasten terminal (push-in type terminal), pull out or insert straightly without twisting it.
 4. When the fuse has blown, do not turn on the power supply replacing only the fuse because the secondary disaster of fumes, fire or other hazards is expected. Turn on the power supply after doing the confirmation and measures of defective causes (structure and circuit, etc.).
 5. After the service or the repair is completed, confirm the operation of the product is normal.

6.1. Printed Circuit Board and Main Parts Location

Electrical Parts

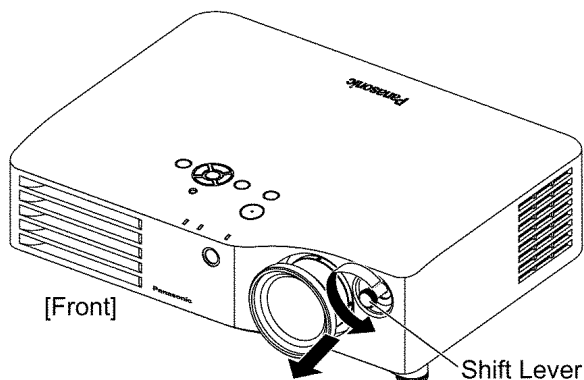


Optical Parts

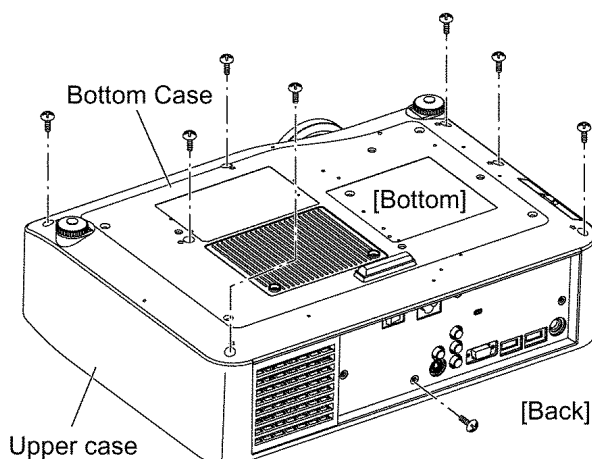


6.2. Removal of Upper Case

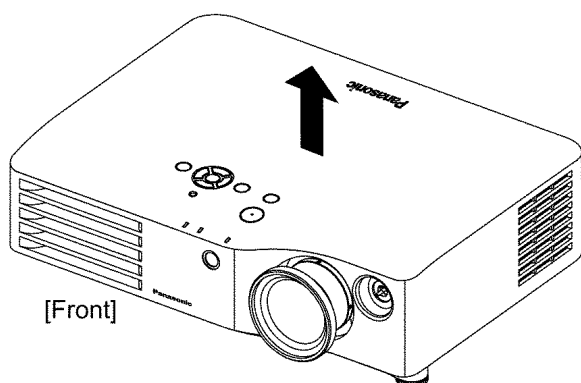
1. Turn counterclockwise the shift lever by about one and a half rotations (540 °) from the position in which it is locked, and pull it forward to remove.



2. Turn the projector upside down.
3. Unscrew the 8 screws.

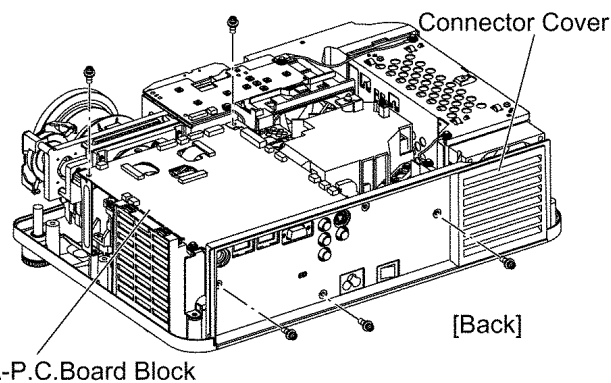


4. Return the projector to the normal position.
5. Remove the upper case.

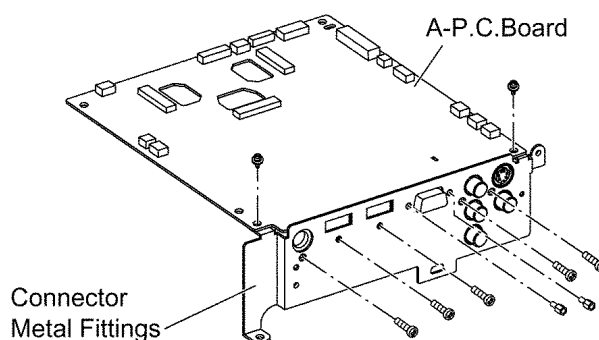


6.3. Removal of A-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 3 screws and remove the connector cover.
3. Disconnect all connectors to/from the A-P.C.Board.
4. Unscrew the 2 screws and remove the A-P.C.Board block.



5. Unscrew the 9 screws and remove the connector metal fittings.

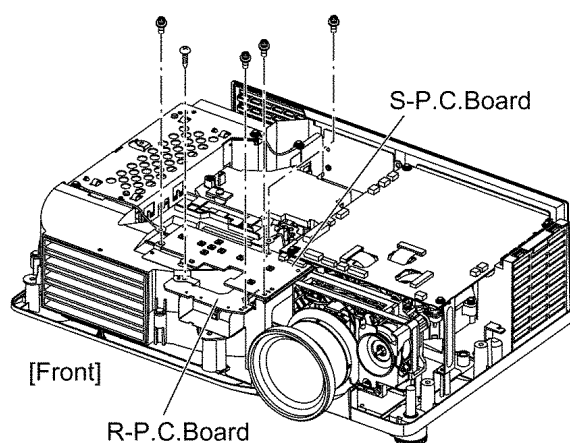


6.4. Removal of R-P.C.Board and S-P.C.Board

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 5 screws and remove the R-P.C.Board and S-P.C.Board.

Note:

- They are connected with the connector. Be careful handling.

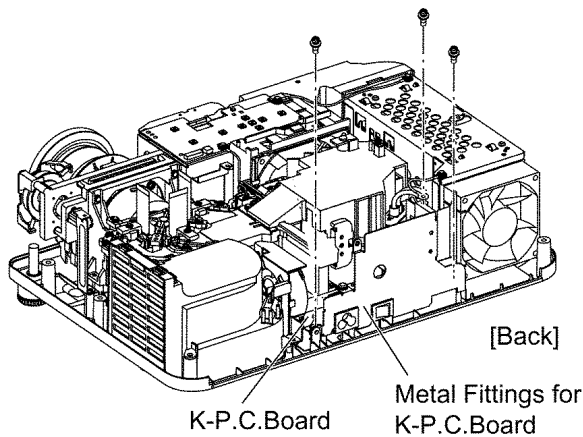


3. Disconnect the connector and separate them.

6.5. Removal of K-P.C.Board

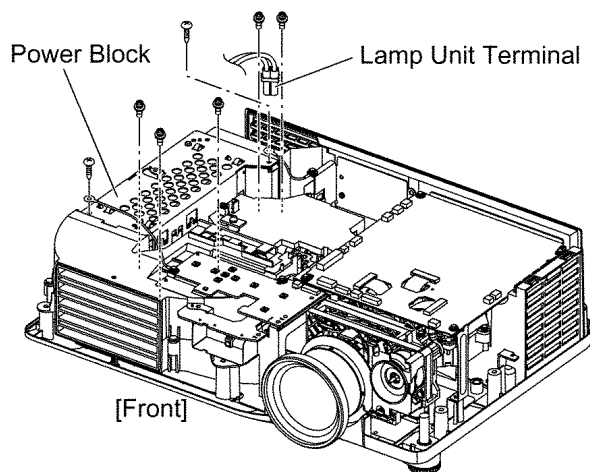
1. Remove the A-P.C.Board block according to the steps 1 through 4 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 1 screw and release the grounding terminal.

3. Unscrew the 2 screws and remove the K-P.C.Board block.

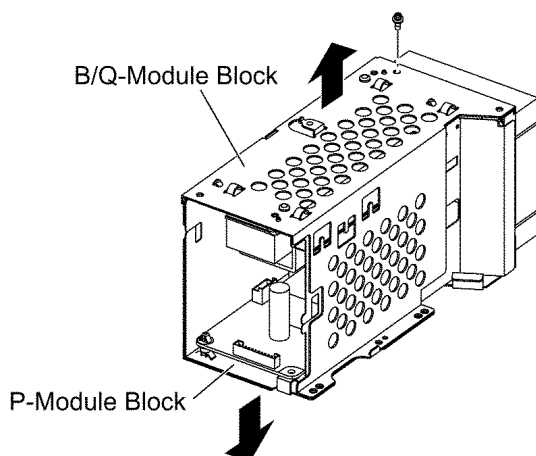


6.6. Removal of B/Q-Module

1. Remove the upper case according to the section 6.2. "Removal of Upper Case".
2. Unscrew the 2 screws and remove the lamp unit terminal.
3. Unscrew the 2 screws and release the 2 grounding terminals.
4. Unscrew the 3 screws and remove the power block (B/Q-Module and P-Module).

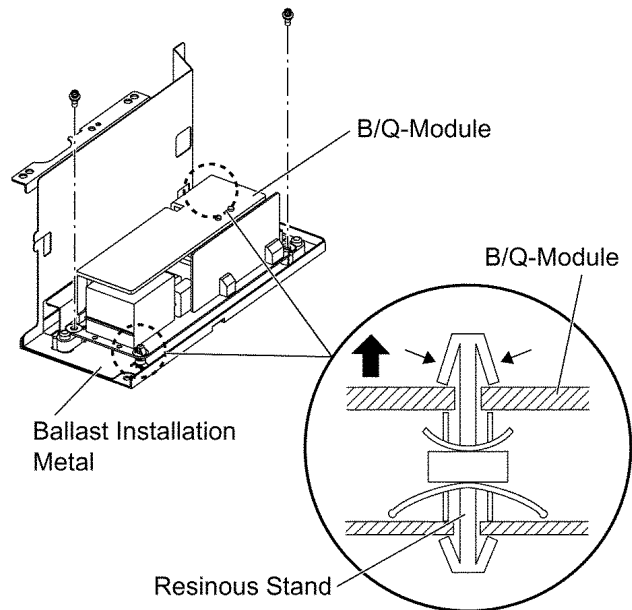


5. Unscrew the 1 screw and separate the B/Q-Module block and P-Module block.



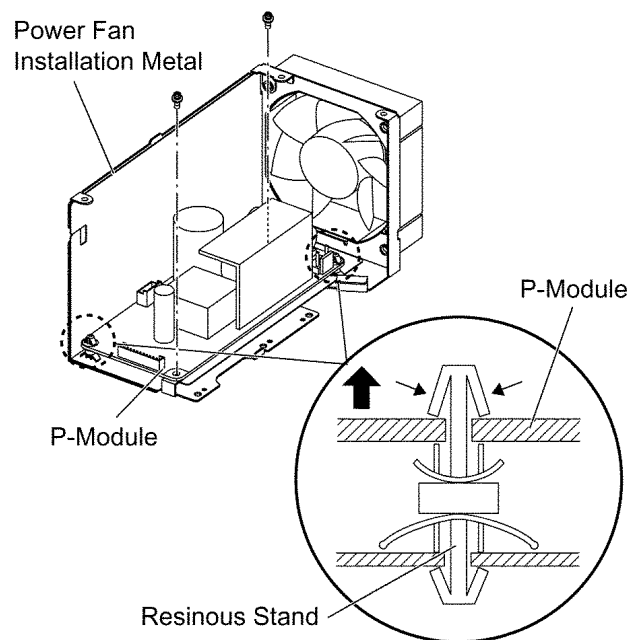
6. Unscrew the 2 screws.

7. While pressing to shut each hook of the 2 resinous stands, remove the B/Q-Module.



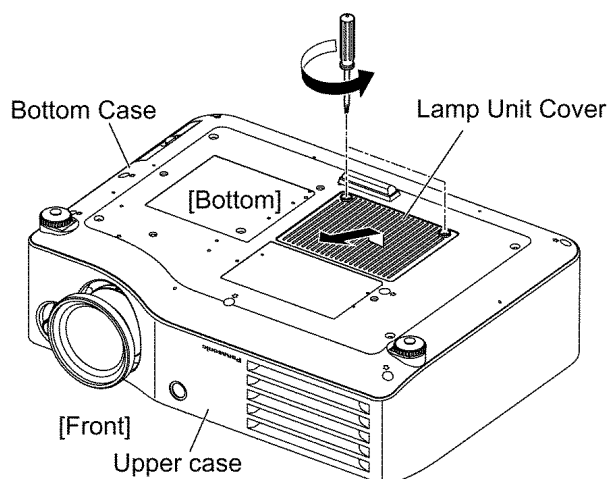
6.7. Removal of P-Module

1. Remove the P-Module according to the steps 1 through 5 in the section 6.6. "Removal of B/Q Module".
2. Unscrew the 2 screws.
3. While pressing to shut each hook of the 2 resinous stands, remove the P-Module.

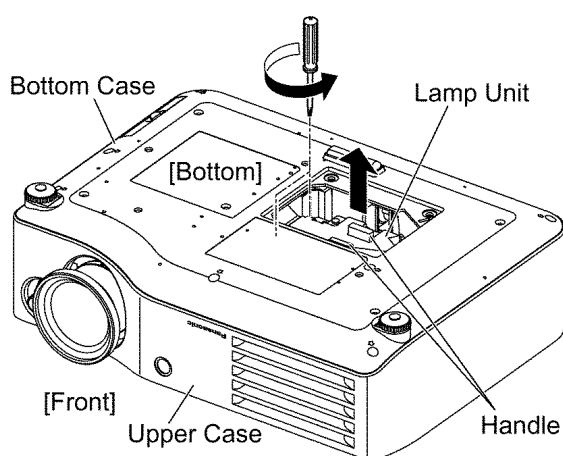


6.8. Removal of Lamp Unit

1. Turn the projector upside down.
2. Loosen the 2 screws until they idle and remove the lamp unit cover.



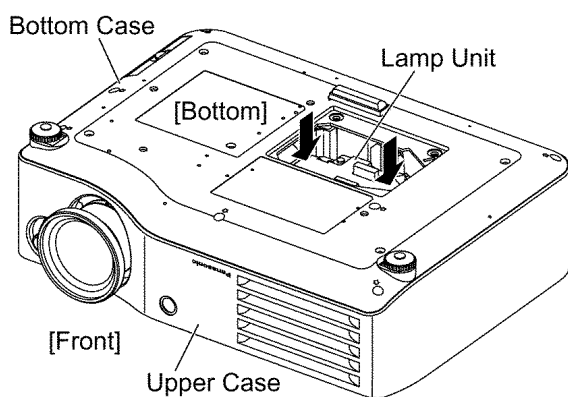
3. Loosen the 2 screws until they idle, remove the lamp unit with the handle.



Note:

- When installing the lamp unit (or a new one) in the main unit, place it in a specified position and press the connector side and the opposite side of the lamp unit (arrow positions shown in the figure below), and confirm the lamp unit is inserted securely.

Then, tighten the 2 screws fixing the lamp unit, and attach the lamp unit cover.

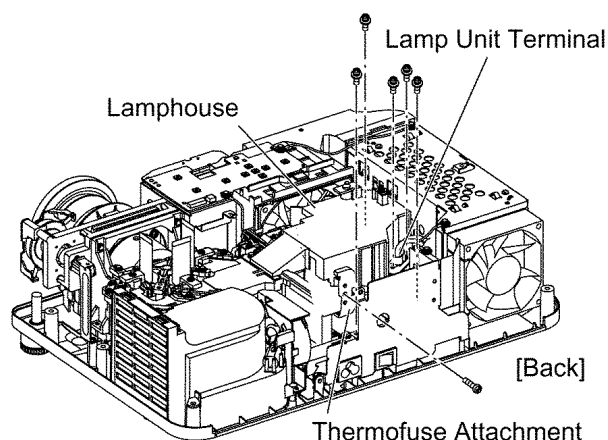


6.9. Removal of Analysis Block

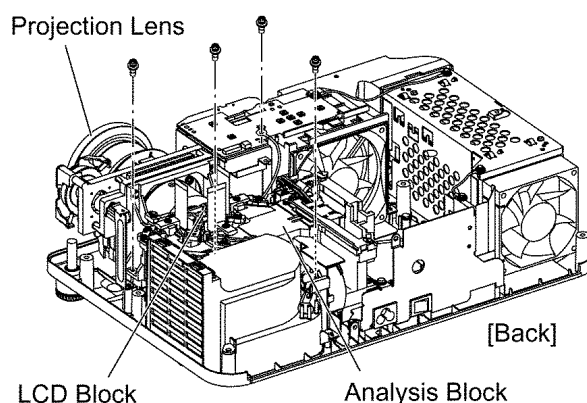
1. Remove the lamp unit according to the section 6.8. "Removal of Lamp Unit".
2. Remove the A-P.C.Board block according to the steps 1

through 4 in the section 6.3. "Removal of A-P.C.Board".

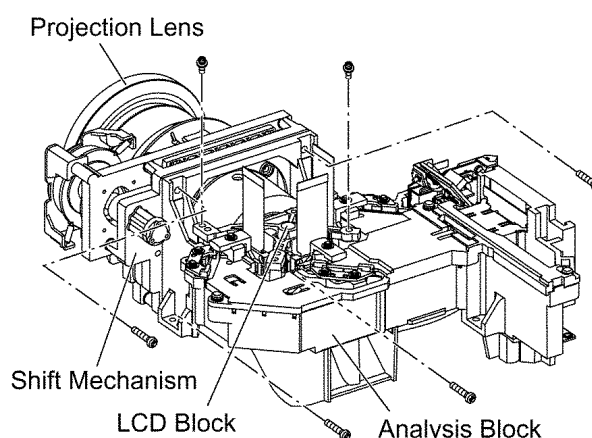
3. Unscrew the 1 screw and remove the thermofuse attachment.
4. Unscrew the 2 screws and remove the lamp unit terminal.
5. Unscrew the 3 screws and remove the lamphouse.



6. Unscrew the 1 screw and release the grounding terminal.
7. Unscrew the 3 screws and remove the block of Analysis Block, LCD Block and Projection Lens Block.



8. Unscrew the 2 screws and remove the LCD block.
9. Unscrew the 4 screws and remove the projection lens block (with shift mechanism).



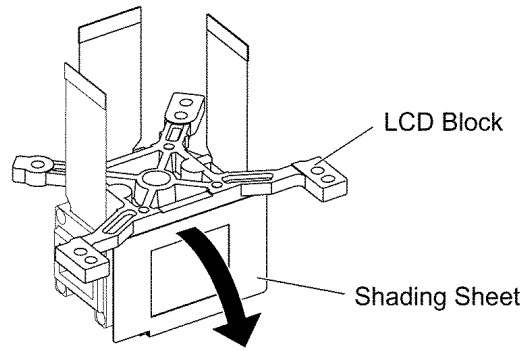
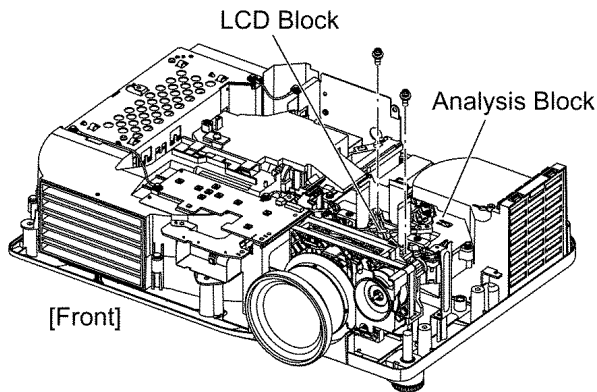
6.10. Removal of LCD Block

1. Remove the A-P.C.Board block according to the steps 1 through 4 in the section 6.3. "Removal of A-P.C.Board".

2. Unscrew the 2 screws and remove the LCD block.

Note:

- Be careful not to touch the surface of prism and LCD panel.



3. Cut the 4 LCD panel installation spindles at the position A and remove the LCD panel (B).

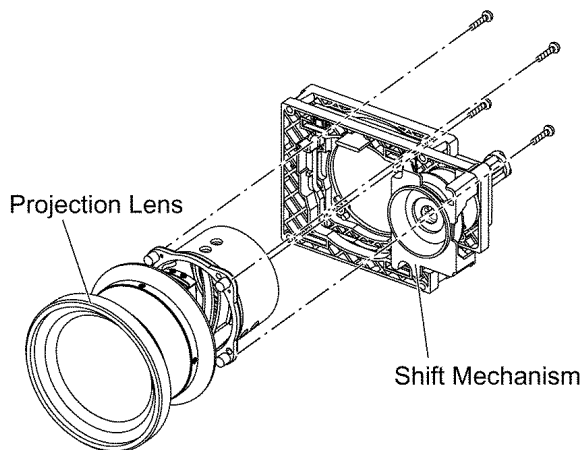
4. Cut the 4 LCD panel installation spindles at the position B and remove them.

Notes:

- Work carefully not to apply external force around the spindle part by using a cutter, cutting nipper or the like for cutting the spindle.
- Adjust the height after the spindle is cut to 1 mm or less.

6.11. Removal of Projection Lens

1. Remove the projection lens block (with shift mechanism) according to the section 6.9. "Removal of Analysis Block".
2. Unscrew the 4 screws and separate the projection lens and the shift mechanism.

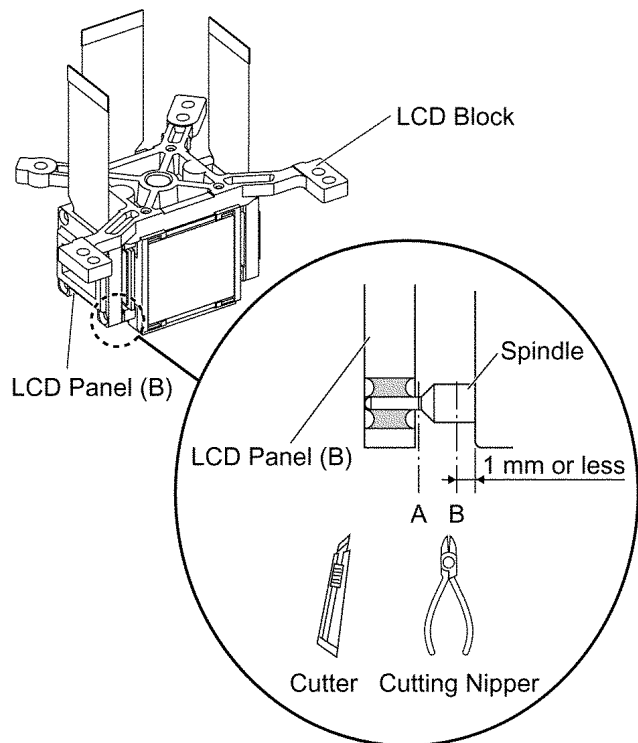


6.12. Replacement of LCD Panel (B)

1. Remove the LCD block according to the section 6.10. "Removal of LCD Block".
2. Remove the shading sheet.

Note:

- The shading sheet is adhered with the adhesive sheet. Do not touch the adhesive sheet of the shading sheet because it is adhered on former position after the LCD panel is replaced.

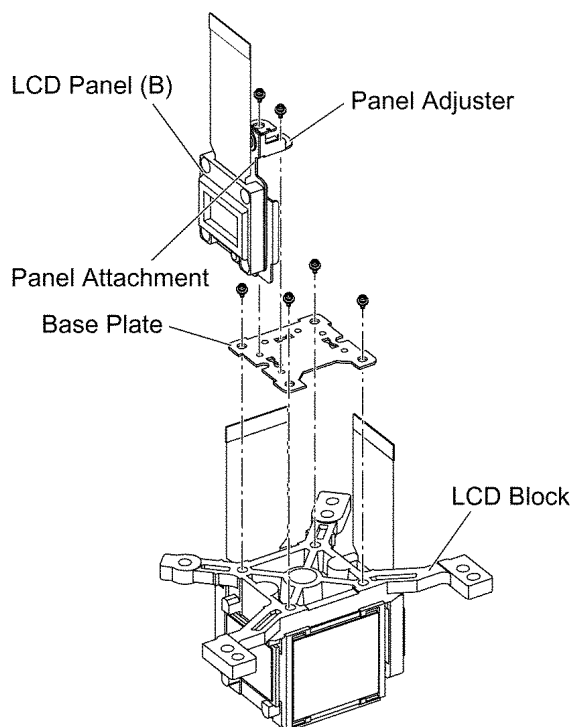


5. Attach the base plate with 4 screws.

6. Tighten the 2 screws temporarily just until new LCD panel (with the panel attachment and panel adjuster) can be shifted by your fingers.

Note:

- The panel adjustment fittings set (panel adjuster, panel attachment and base plate) is an option for service.



7. Reassemble the projector in the reverse order of disassembling, but leave the upper case and the screws fixing the A-P.C.Board block as they are removed.

8. Adjust the convergence according to the section 7.4. "Convergence Adjustment".

9. After the adjustment, while paying attention not to vary the adjusting result, tighten the 2 screws (upper) fixing the panel attachment temporarily with a hexagon head wrench.

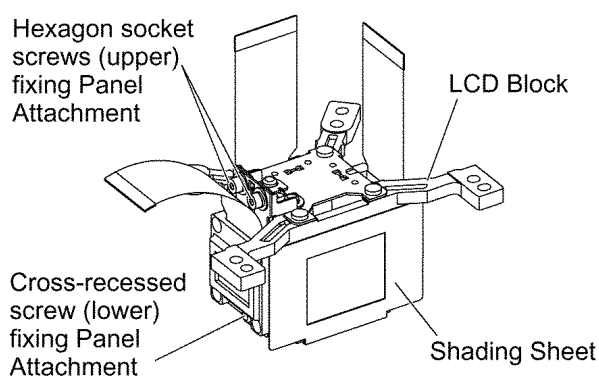
Notes:

- Prepare a hexagon head wrench processed short.

10. Remove the LCD block again.

11. Tighten the 3 screws fixing the panel attachment.

12. Adhere the shading sheet as it was.



13. Reassemble the projector as it was.

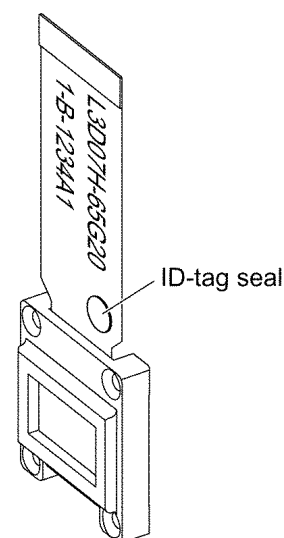
6.13. LCD Panel Discrimination

ID-tag seal color	LCD panel
Red	LCD panel (R)
Blue	LCD panel (B)
(No seal)	LCD panel (G)

- Since the ID-tag seal is pasted to the FPC of LCD Panel, (R), (G) or (B) can be easily identified by the color of the

seal.

- Finally, identify the panel color by the part number printed on the FPC.



6.14. LCD Panel Combination

- Part number is printed on the FPC of LCD Panel.
- When replacing LCD Panel, use a component which has the same part number as the original.

LCD panel	Combination1	Combination2
R	L5BDAYY00020 (L3D07H-65G20)	L5BDAYY00023 (L3D07H-66G20)
G	L5BDAYY00024 (L3D07H-66G20)	L5BDAYY00021 (L3D07H-65G20)
B	L5BDAYY00022 (L3D07H-65G20)	L5BDAYY00025 (L3D07H-66G20)

6.15. Replacement of Projection Polarizer

- The procedure is described as an example of projection polarizer (B).

1. Remove the LCD block according to the section 6.10. "Removal of LCD Block".
2. Remove the projection polarizer which requires replacing. (The projection polarizer is secured with adhesive tape.)

Notes:

- Be careful not to damage peripheral components (prism, LCD panel, etc.).
- Use tweezers.

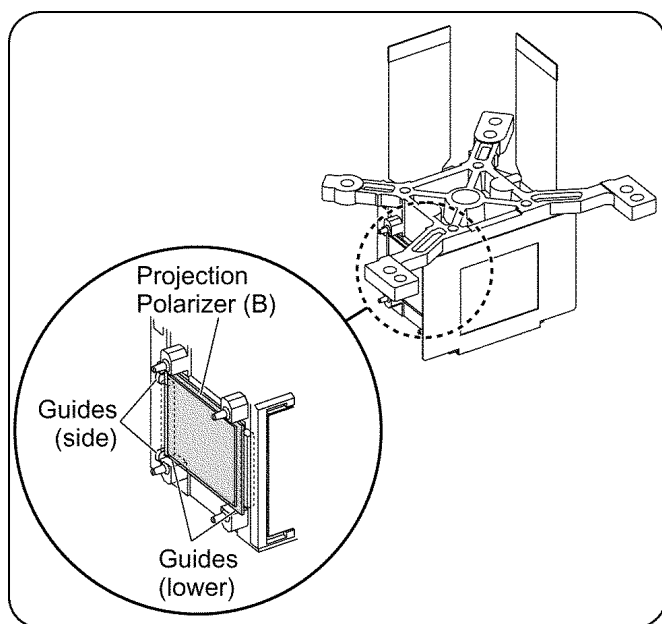
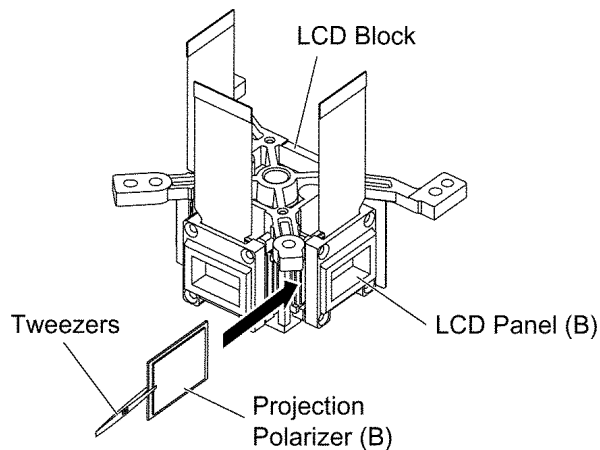
3. Install new projection polarizer.

- a. Put adhesive tape on the projection polarizer.
- b. Stick the projection polarizer on the specified position.

Notes:

- Align the projection polarizer with the guides (lower, side) of LCD block.
- Be careful not to touch the surface of projection polarizer.
- Use tweezers.

- c. Press the adhesive part and secure the projection polarizer.



6.16. Replacement of Incidence Polarizer

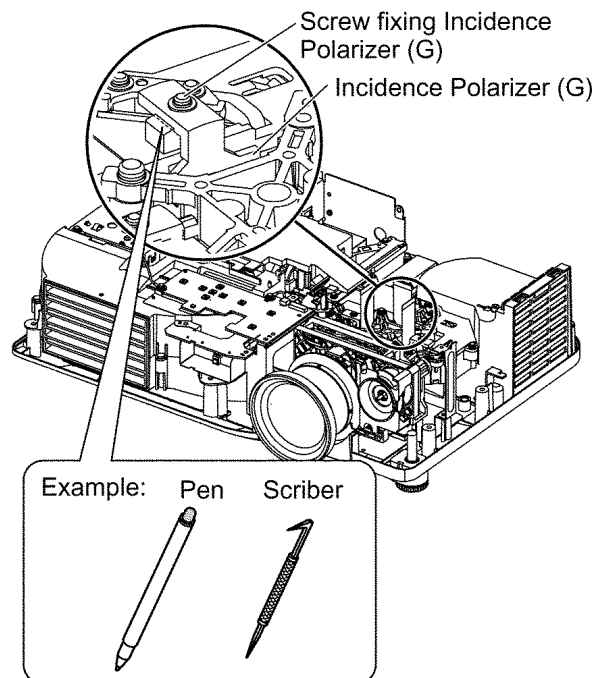
The procedure is described as an example of incidence polarizer (G).

1. Remove the A-P.C.Board block according to the steps 1 through 4 in the section 6.3. "Removal of A-P.C.Board".
2. Mark positions of the incidence polarizer.

Note:

- Mark accurately as possible because the marks will be used for resetting the incidence polarizer position.

3. Unscrew the 1 screw and remove the incidence polarizer.
4. Attach a new incidence polarizer and align it with the mark.
5. Tighten the 1 screw with care not to move the incidence polarizer position.

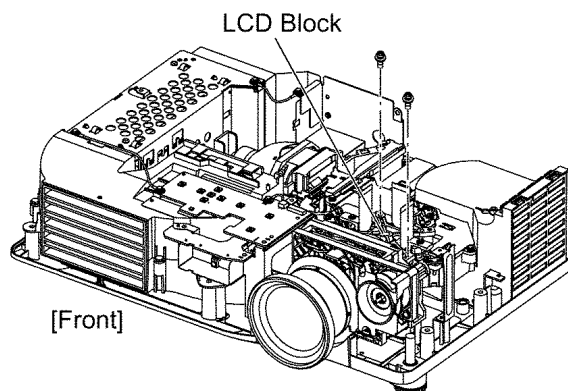


6.17. Replacement of PBS Array (Analysis Block)

1. Remove the A-P.C.Board and lamphouse according to the steps 2 through 5 in the section 6.9. "Removal of Analysis Block".
2. Unscrew the 2 screws and remove the LCD block.

Note:

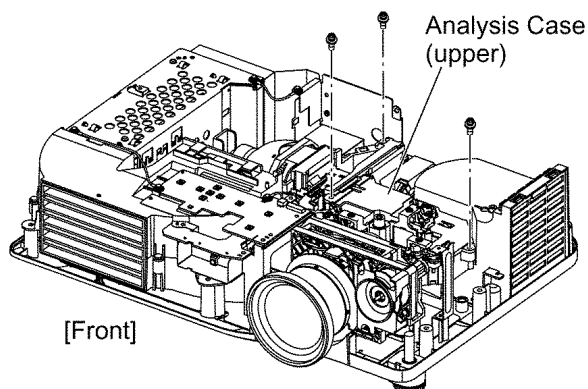
- Be careful not to touch the surface of prism and LCD panel.



3. Unscrew the 3 screws and remove the analysis case (upper).

Note:

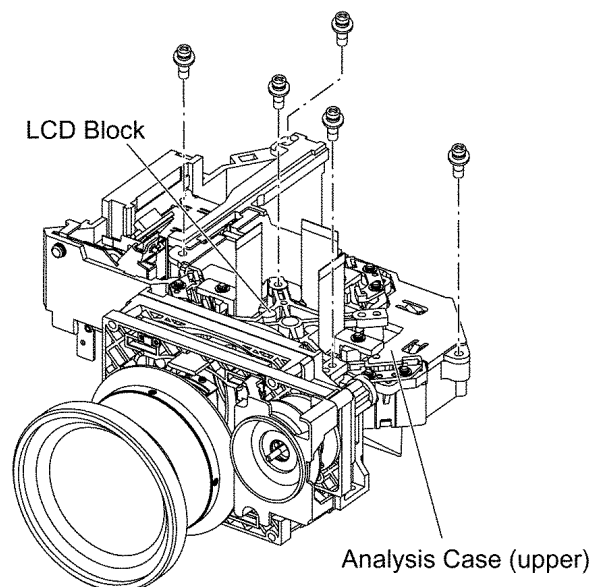
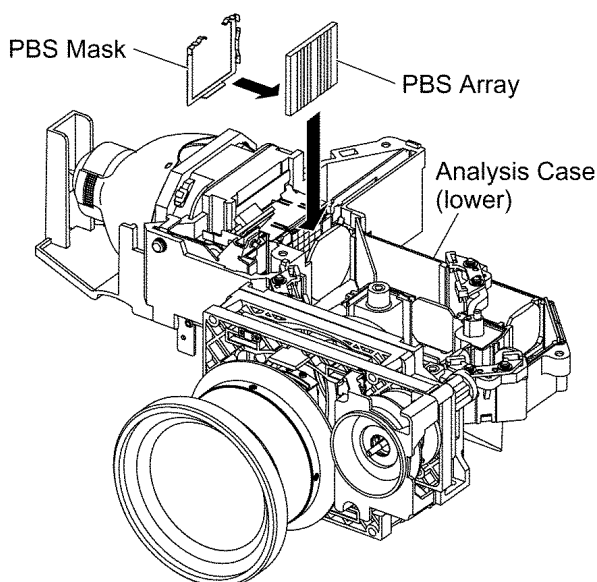
The incidence polarizer (R, G and B) are installed in the analysis case (upper). Be careful not to shift the installation position nor be damaged.



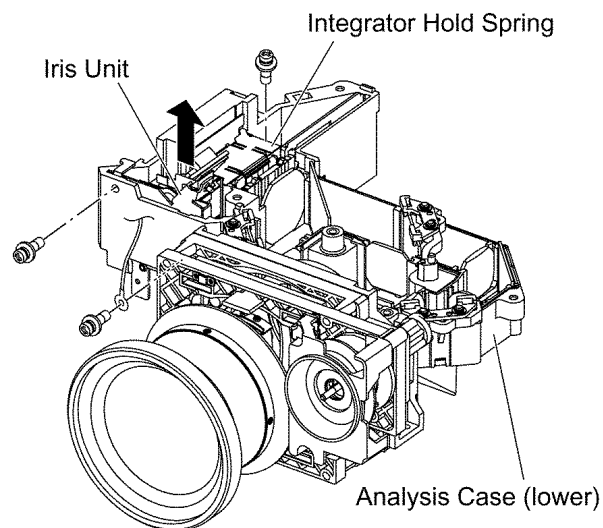
4. Remove the PBS array (with PBS mask).
5. Remove the PBS mask from the PBS array.
6. Install the PBS mask onto a new PBS array.
7. Install the new PBS array (with PBS mask) in the analysis case (lower).

Note:

- Be careful not to mistake the direction (inside/outside, upper/lower).
- Be careful not to touch the surface of PBS array.



4. Unscrew the 1 screw and remove the integrator hold spring.
5. Unscrew the 2 screws and remove the iris unit.



6.18. Removal of Iris Unit

1. Remove the block of Analysis Block, LCD Block and Projection Lens Block according to the steps 1 through 7 in the section 6.9. "Removal of Analysis Block".
2. Unscrew the 2 screws and remove the LCD block.

Note:

- Be careful not to touch the surface of prism and LCD panel.

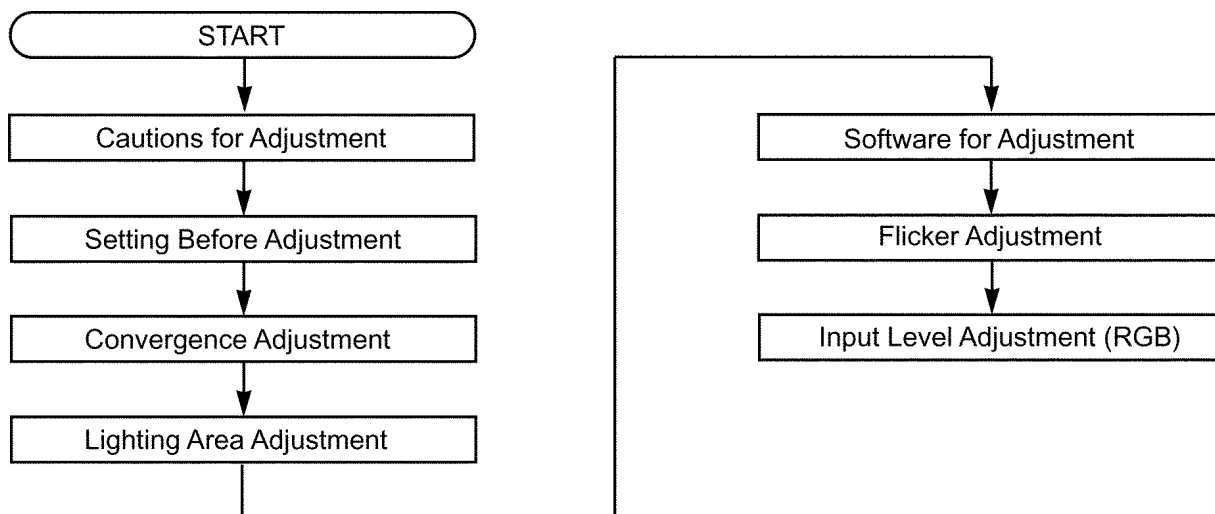
3. Unscrew the 3 screws and remove the analysis case (upper).

Note:

- The incidence polarizer (R, G and B) are installed in the analysis case (upper). Be careful not to shift the installation position nor be damaged.

7 Measurement and Adjustments

7.1. Adjustment Procedure Flowchart

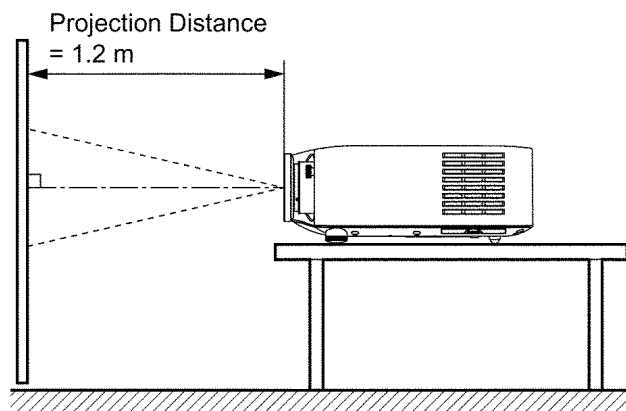


7.2. Cautions for Adjustment

- Never turn off the MAIN POWER switch until every fan completely stops.
- To maintain and ensure safety, always use the designated components for replacement parts.
- If removing any clamps, lead wires or connectors, always place them back in their proper locations.
- Be careful not to damage the lead wires or components when using a soldering iron or similar tool.

7.3. Setting Before Adjustment

- Set up the projector to obtain the projection distance below.
- Turn the zoom ring of the projector to obtain the largest size of the picture.



7.4. Convergence Adjustment

Execute this adjustment when replacing the LCD panel (B) .

7.4.1. Tools to be used

Service Kit : This kit is composed of 3 extension flexible cables and 4 connector extension cables.

Note:

- Consult your dealer or Authorized Service Center for the service kit.

7.4.2. Preparation

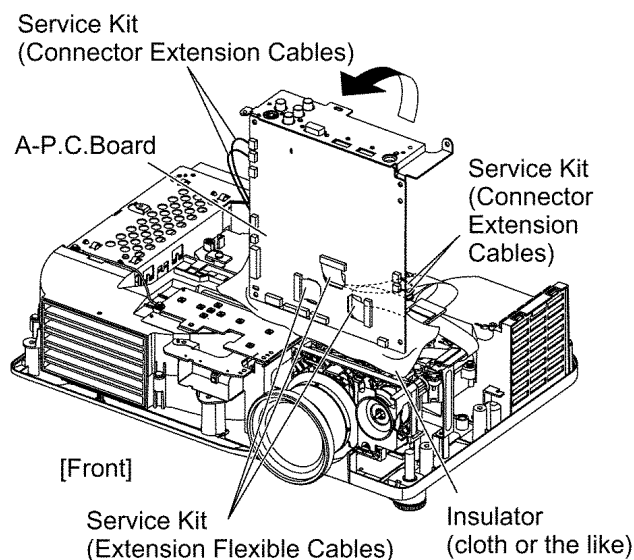
1. Loosen 2 screws fixing the panel adjuster and 3 screws fixing the panel attachment, then tighten the 5 screws temporarily just until the LCD panel can be shifted by your fingers.

Note:

- See figures in the section 6.12. "Replacement of LCD Panel (B)" for 2 screws fixing the panel adjuster and 3 screws fixing the panel attachment.
2. Reassemble the projector in the reverse order of disassembling, but leave the upper case and the screws fixing the A-P.C.Board block as they are removed.
 3. Connect the service kit (extension cables).
 - Each flexible cable of LCD Panels (R/G/B) - Connectors (A1/A2/A3) on A-P.C.Board
 - Thermosensor (Intake air) connector - Connector (A7) on A-P.C.Board
 - Intake fan connector - Connector (A15) on A-P.C.Board
 - Power fan connector - Connector (A16) on A-P.C.Board
 - Lamp fan connector - Connector (A18) on A-P.C.Board
 4. Covering with an insulator (cloth or the like) to prevent a short circuit, set the A-P.C.Board block on the main unit.

Note:

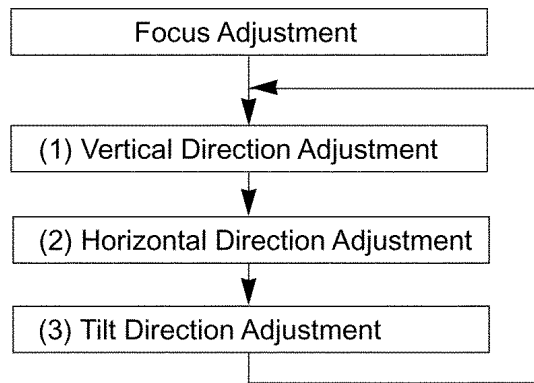
- Handle with care not to apply external force to connecting parts which connect the main unit and A-P.C.Board.



7.4.3. Adjustment Procedure

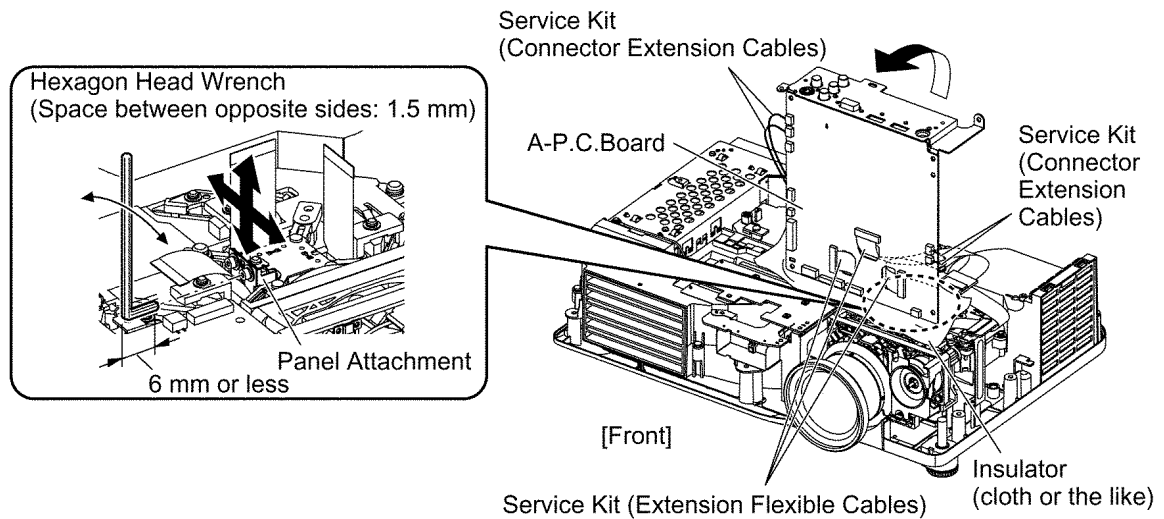
Prepare 2 pieces of thick black paper (23 mm × 100 mm) that can be shaded.

- Cover and shade LCD panels with the paper except the panel that attempts to be adjusted.
1. Display the green crosshatch pattern and adjust the lens focus.
 2. Display green and blue crosshatch patterns.
 3. Adjust focus by shifting the panel adjuster for LCD panel (B) back and forth, then tighten the 2 screws.
 4. Adjust the LCD panel (B) position so that the vertical center of blue crosshatch pattern is overlapped with the vertical center of green crosshatch pattern.
 5. Adjust the LCD panel (B) position so that the horizontal center of blue crosshatch pattern is overlapped with the horizontal center of green crosshatch pattern.
 6. Correct the tilt of the blue crosshatch pattern by adjusting the LCD panel (B) position.
 7. Display green, red and blue crosshatch patterns and confirm the convergence. If it is necessary, fine adjust the convergence so that the blue crosshatch pattern is overlapped with green one.



Repeat steps (1) to (3) until the green and blue crosshatch patterns merge into a cyan pattern.

8. After the adjustment, reassemble the projector according to the steps 9 through 13 in the section 6.12. "Replacement of LCD Panel (B)".



7.5. Lighting Area Adjustment

7.5.1. Tools to be used

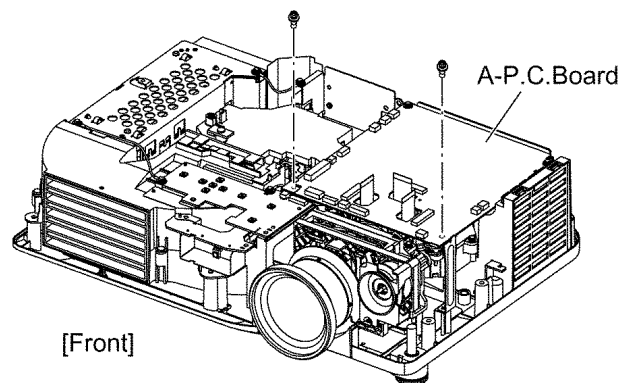
Service Kit: This kit is composed of 3 extension flexible cables and 4 connector extension cables.

Note:

- Consult your dealer or Authorized Service Center for the service kit.

7.5.2. Preparation

1. Remove the upper case and the connector cover according to the steps 1 through 2 in the section 6.3. "Removal of A-P.C.Board".
2. Unscrew the 2 screws.



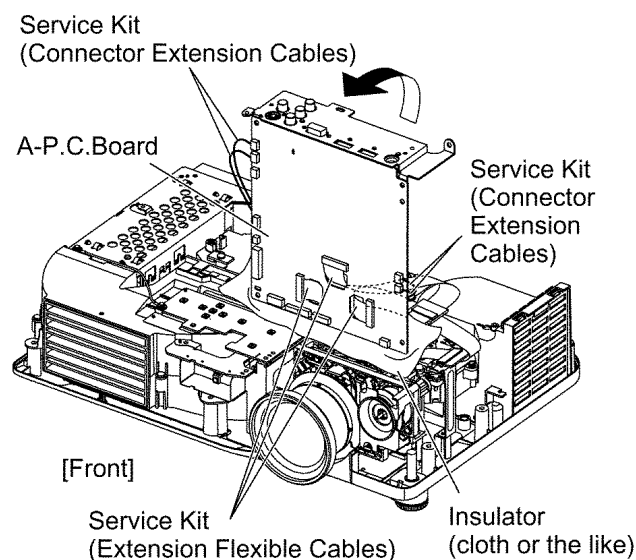
3. Connect the service kit (extension cables).

- Each flexible cable of LCD Panels (R/G/B) - Connectors (A1/A2/A3) on A-P.C.Board
- Thermosensor (Intake air) connector - Connector (A7) on A-P.C.Board
- Intake fan connector - Connector (A15) on A-P.C.Board
- Power fan connector - Connector (A16) on A-P.C.Board
- Lamp fan connector - Connector (A18) on A-P.C.Board

4. Covering with an insulator (cloth or the like) to prevent a short circuit, set the A-P.C.Board block on the main unit.

Note:

- Handle with care not to apply external force to connecting parts which connect the main unit and A-P.C.Board.



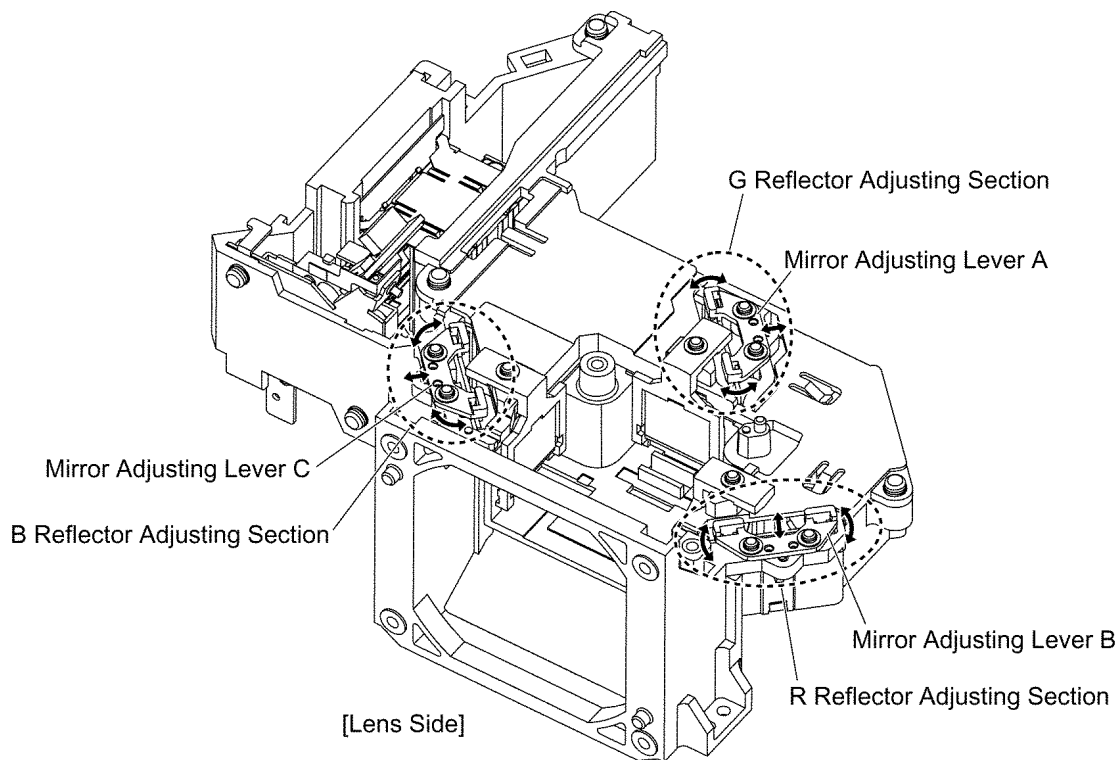
7.5.3. Adjustment Procedure

7.5.3.1. Outline

When the lighting area is off from the adjustment and color unevenness appears, adjust the lighting area into correct position.

Symptom	Measure
Magenta unevenness	G Reflector Adjustment
Cyan unevenness	R Reflector Adjustment
Yellow unevenness	B Reflector Adjustment

- Shifting the mirror adjusting lever horizontally, adjust color unevenness on the screen upper/lower sides.
- Twisting the mirror adjusting lever, adjust color unevenness on the screen right/left sides.



[Above figure is shown only the analysis block for explanation.]

7.5.3.2. G Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 2 screws fixing the mirror adjusting lever A just until the lever can be shifted.
3. Adjust the mirror adjusting lever A position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 2 screws.

7.5.3.3. R Reflector Adjustment

1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 2 screws fixing the mirror adjusting lever B just until the lever can be shifted.
3. Adjust the mirror adjusting lever B position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 2 screws.

7.5.3.4. B Reflector Adjustment

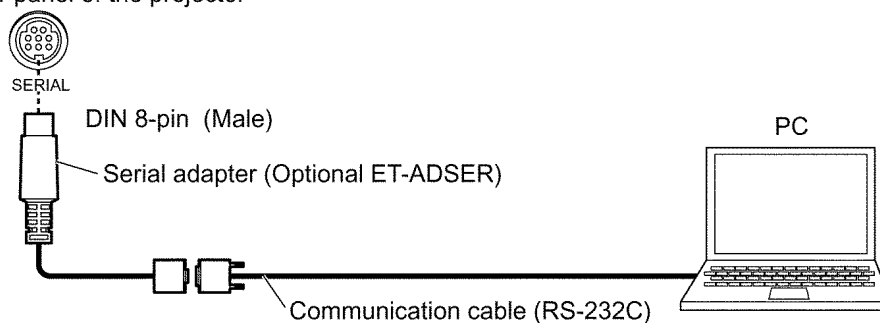
1. Turn on the power and display 100 % white pattern on the screen.
2. Loosen the 2 screws fixing the mirror adjusting lever C just until the lever can be shifted.
3. Adjust the mirror adjusting lever C position to minimize color unevenness on the screen by shifting the lever in arrow directions.
4. Tighten the 2 screws.

7.6. Software for Adjustment

7.6.1. Outline

- This projector needs computer-aided adjustments.
- After the software adjustments, this projector must be turned off and on again to memorize the settings.
- Connect the cable between the projector and a PC as shown below.
- Updating the software will change the version number.

Back connector panel of the projector



7.6.2. Operating Procedure

1. Run software program by the keyboard entry.

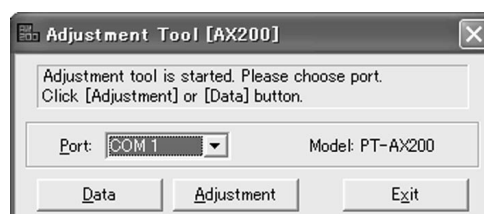
Note:

- Use the software program as below.

Adjustment Tool [AX200]

2. The first menu is Port selection menu.
3. Adjust the projector by selecting the necessary item from the menu in each stage.

7.6.3. Port Selection Menu



Select the port name of PC which connects with the projector, then click [Data] or [Adjustment] button.

7.6.3.1. Explanation of Buttons

Data:

Displays the data transmission/reception menu.

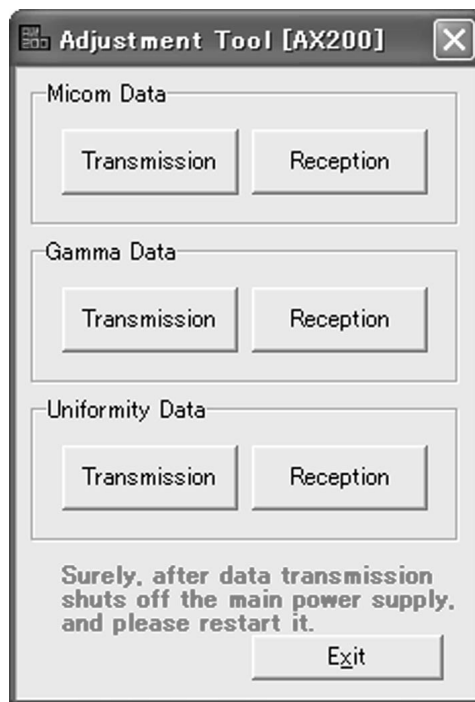
Adjustment:

Displays the adjustment menu.

Exit:

Exits this application.

7.6.4. Data Transmission/Reception Menu



7.6.4.1. Explanation of Buttons

Micom Data Transmission:

Reads the microcomputer data from the file and transmits it to the projector.

Micom Data Reception:

Receives the microcomputer data from the projector and writes it in the file.

Gamma Data Transmission:

Reads the gamma data from the file and transmits it to the projector.

Gamma Data Reception:

Receives the gamma data from the projector and writes it in the file.

Uniformity Data Transmission:

Reads the color unevenness correction data from the file and transmits it to the projector.

Uniformity Data Reception:

Receives the color unevenness correction data from the projector and writes it in the file.

Exit:

Exits this application.

7.6.4.2. Receiving and transmitting of the data

Click a target button and specify a file name.

7.6.5. Adjustment Menu



7.6.5.1. Explanation of Buttons

Flicker Adjustment:

Displays Flicker Adjustment menu.

Input Level Adjustment [RGB]:

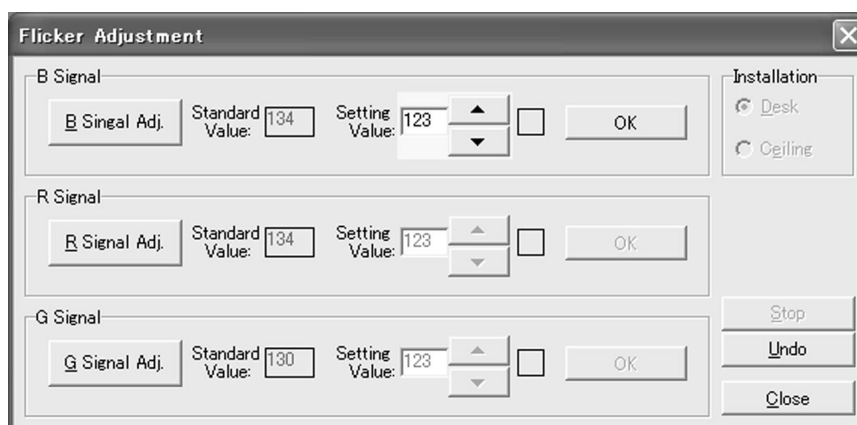
Displays Input Level Adjustment (RGB) menu.

Exit:

Exits this application.

7.7. Flicker Adjustment

7.7.1. Adjustment Menu



7.7.2. Explanation of Buttons

B Signal Adj.:

Sets the test signal mode to the B-signal and allows the " ▲ ", " ▼ " and "OK" buttons of the B-signal to become active.

R Signal Adj.:

Sets the test signal mode to the R-signal and allows the " ▲ ", " ▼ " and "OK" buttons of the R-signal to become active.

G Signal Adj.:

Sets the test signal mode to the G-signal and allows the " ▲ ", " ▼ " and "OK" buttons of the G-signal to become active.

▲ or ▼

Changes the setting value and transmits its data. (The 8 and 2 keys on the keyboard have the same functions.) If releasing the mouse or key after pressing it continuously, the data is transmitted once. The variable setting value is enclosed in a box and using the TAB or SPACE key allows the move of the box.

OK:

Determines the setting value and stores its data in the EEPROM. (The ENTER key on the keyboard has the same function.) The item having two or more kinds of setting values is processed two or more items. Clicking this button or pressing ENTER key changes the color of the text "OK" to cyan (light blue). If changing the setting value using the " ▲ " or " ▼ " button or

the 8 or 2 key, its color returns to black.

Stop:

Discontinues the communication. (This button is usually set for its inactive mode.)

Undo:

Returns the setting value to its original state and transmits its data. The color of the text "OK" returns to black.

Close:

Closes this menu.

7.7.3. Equipment to be used

PC, Software for Adjustment

7.7.4. Adjustment Procedure

1. Display Flicker Adjustment menu.
2. Click "B Signal Adj," and the blue flicker adjustment pattern will be displayed.
3. Minimize the flicker while observing the projected pattern.
4. Click "R Signal Adj," and the red flicker adjustment pattern will be displayed.
5. Minimize the flicker while observing the projected pattern.
6. Click "G Signal Adj," and the green flicker adjustment pattern will be displayed.
7. Minimize the flicker while observing the projected pattern.

7.8. Input Level Adjustment (RGB)

7.8.1. Adjustment Menu



7.8.2. Explanation of Buttons

OK:

Executes automatic sub contrast and sub brightness adjustments, then closes this dialog.

Cancel:

Cancels this menu.

7.8.3. Equipment to be used

PC, RGB Signal Generator, Software for Adjustment

7.8.4. Adjustment Procedure

1. Display the input level adjustment [RGB] menu.
2. Input a window pattern signal to PC IN (RGB) connector.

Note:

- Use approx. 15 % window pattern as follows.
 - Black background (screen width) : White window width = 2 : 1
 - Black background (screen height) : White window height = 3 : 1
- Use the window pattern of XGA (1 024 × 768).

3. Click the OK button.

8 Troubleshooting

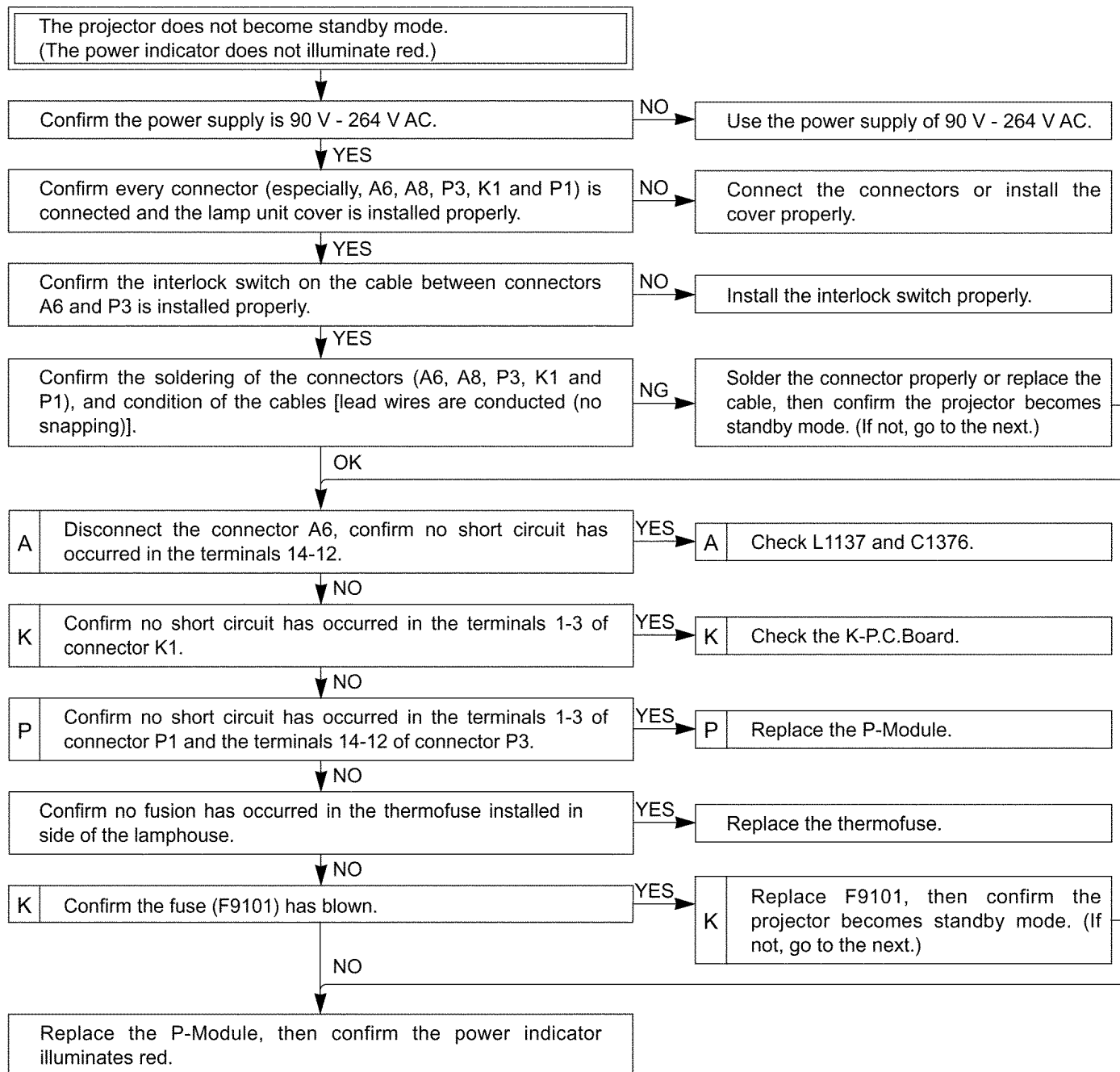
The letters in the left of the inspection items indicate the P.C.Boards or Modules related to their respective descriptions.

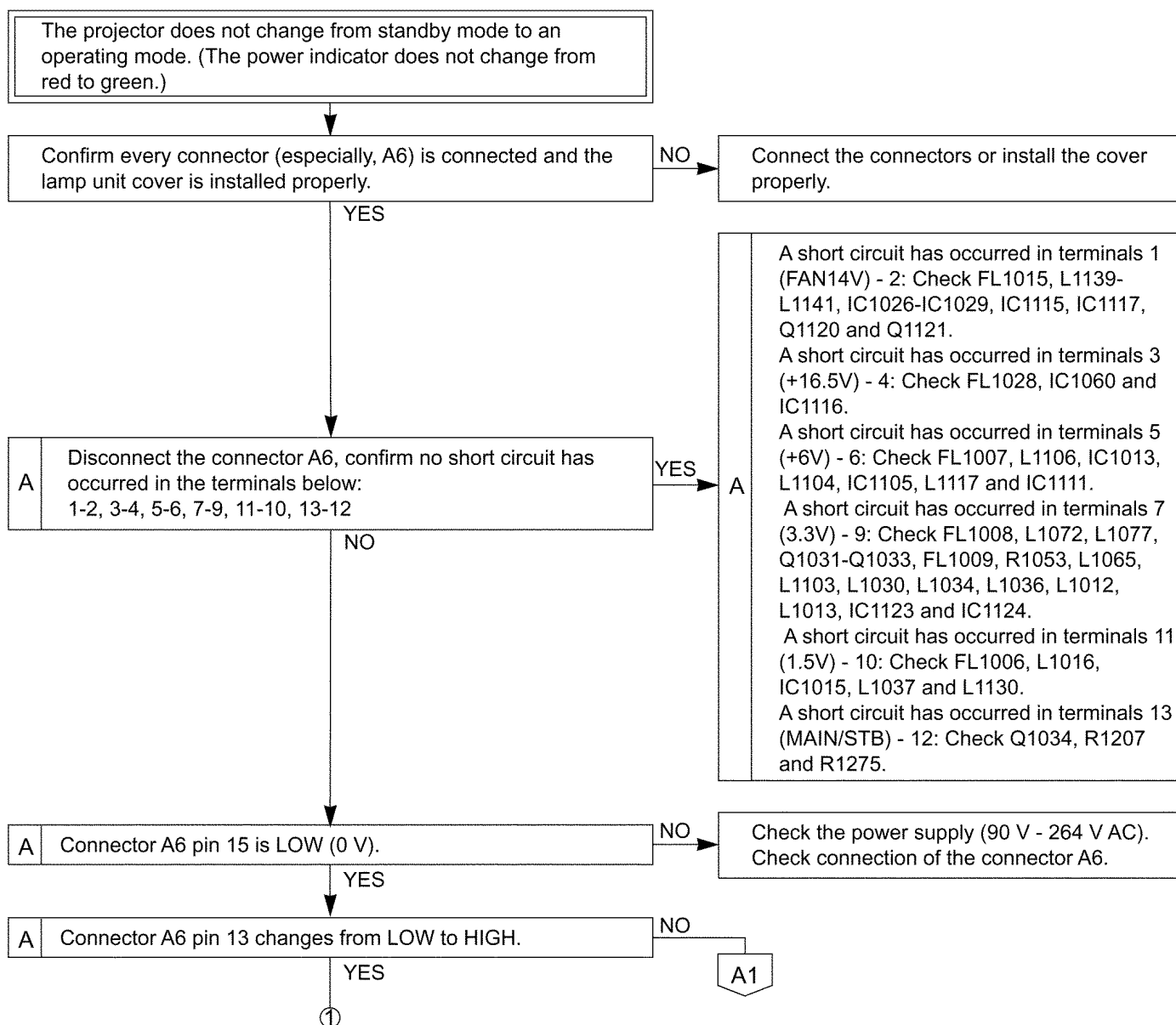
Note: 

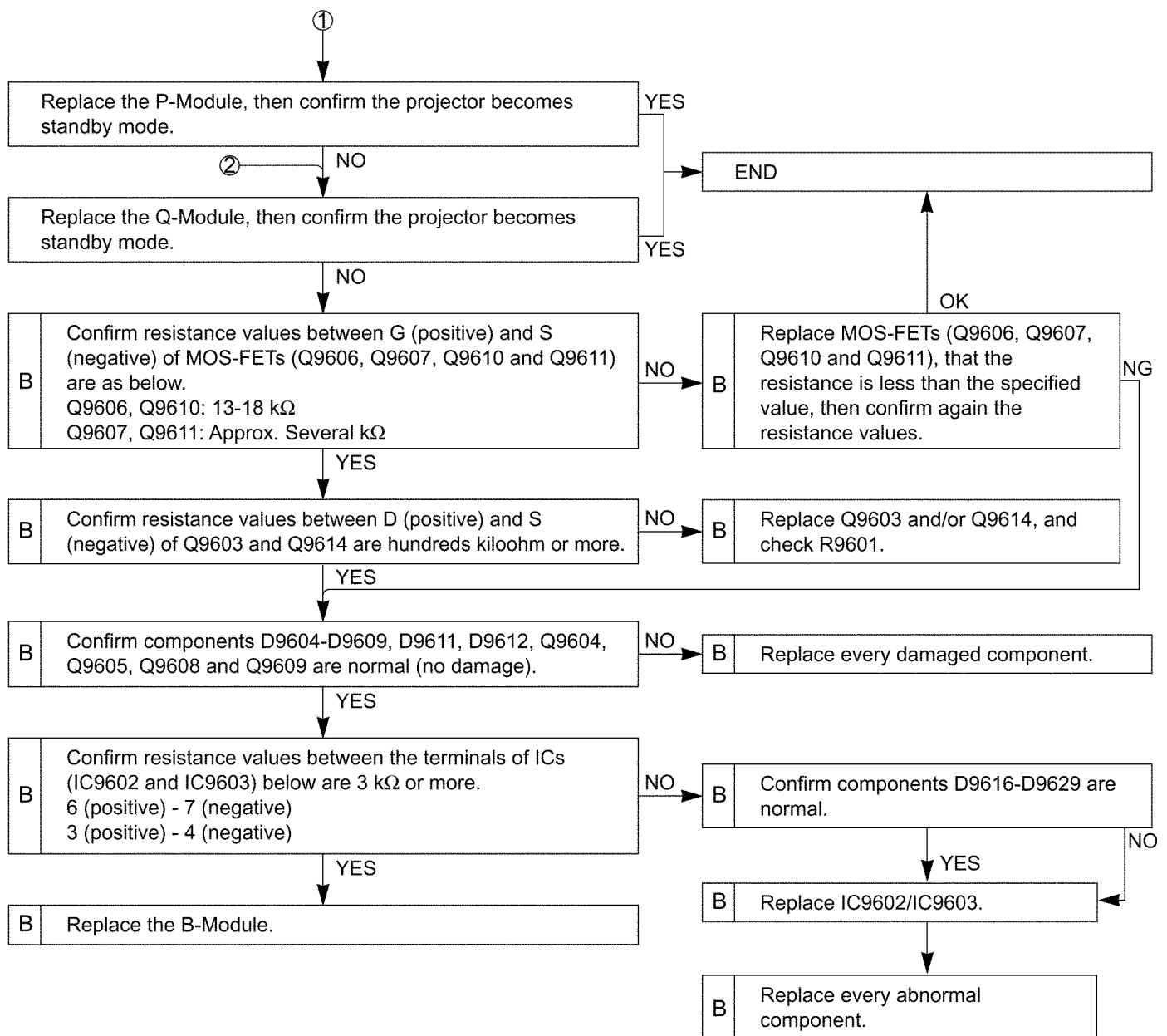
The letter of the alphabet indicates the P.C.Board or Module name.

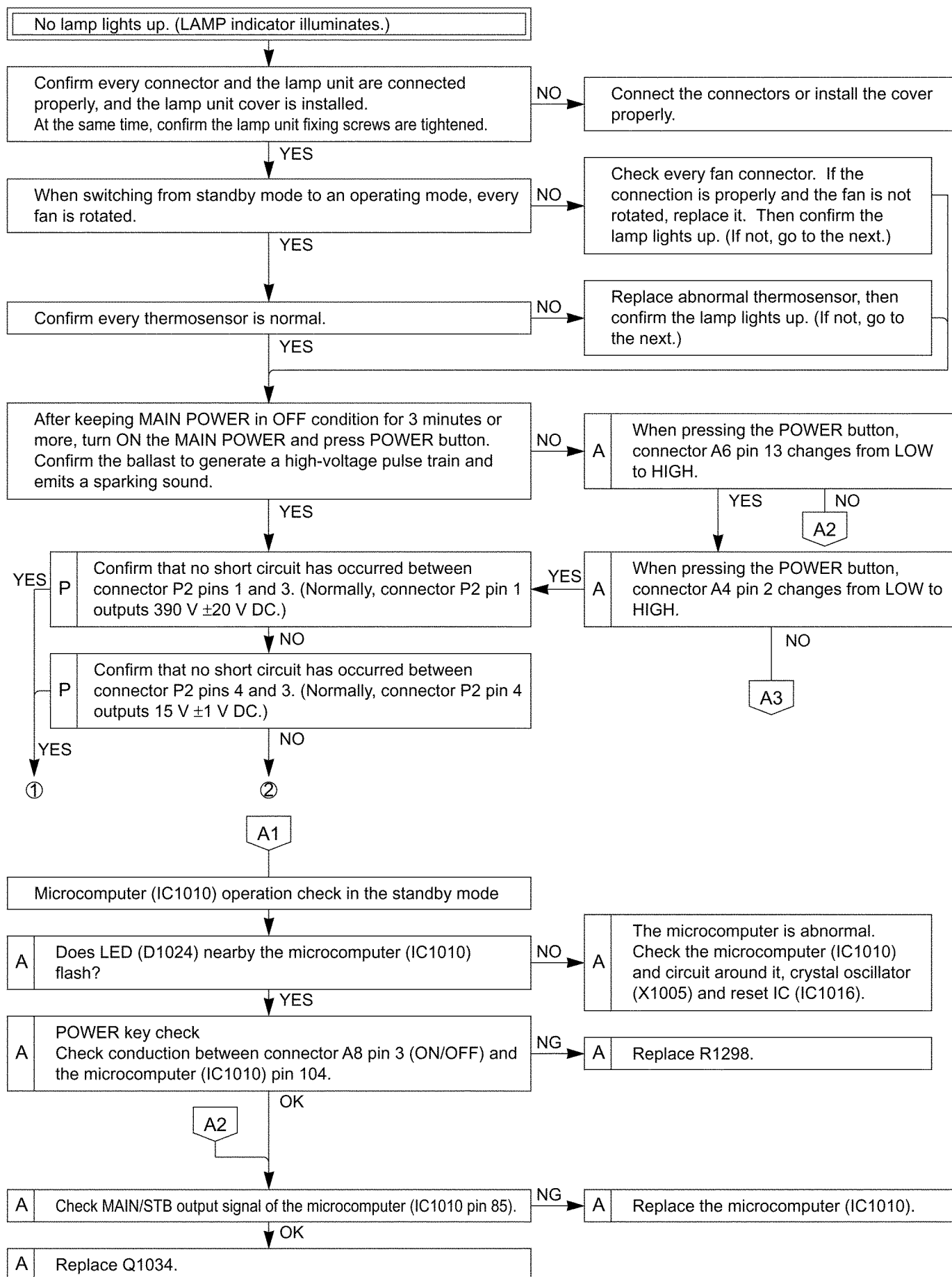
(Example) A: A-P.C.Board, P: P-Module

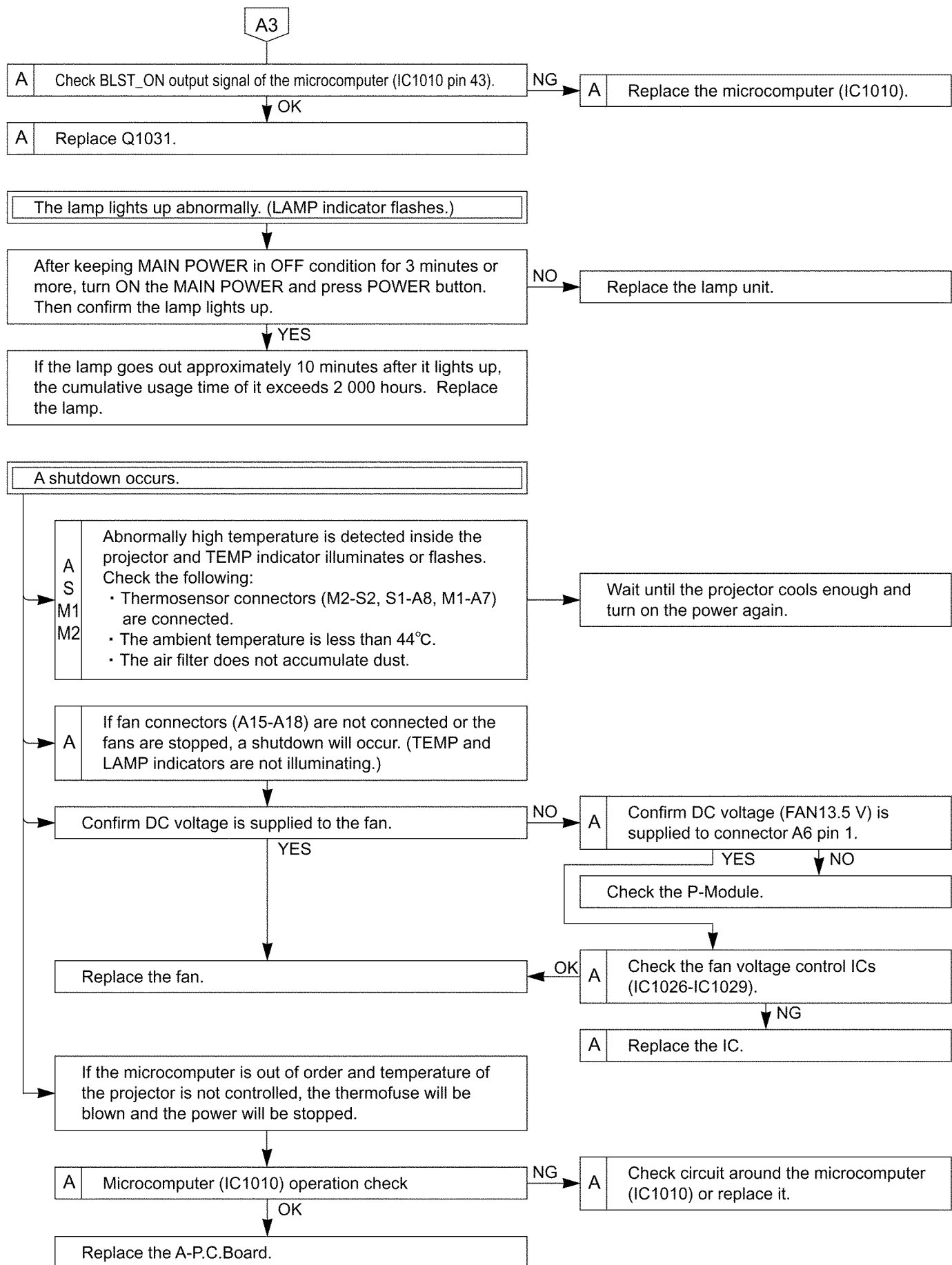
- If replacing A-P.C.Board (assembly), read the ROM data from the old P.C.Board and write it in the new one according to the section 7.6. "Software for Adjustment". At this time, if the readout from the old P.C.Board does not succeed, remove IC1061 and IC1063 from the old P.C.Board and install them on the new one. Then, execute the self-check according to the chapter 3. "Self-Check Mode", and confirm "G SAVED" and "U-SAVED" display "OK".
- If replacing A-P.C.Board (assembly), minimize the flicker according to the chapter 4. "Flicker Adjustment Mode".
- If replacing A-P.C.Board (assembly), adjust the RGB Input Level according to the chapter 7.8. "Input Level Adjustment".

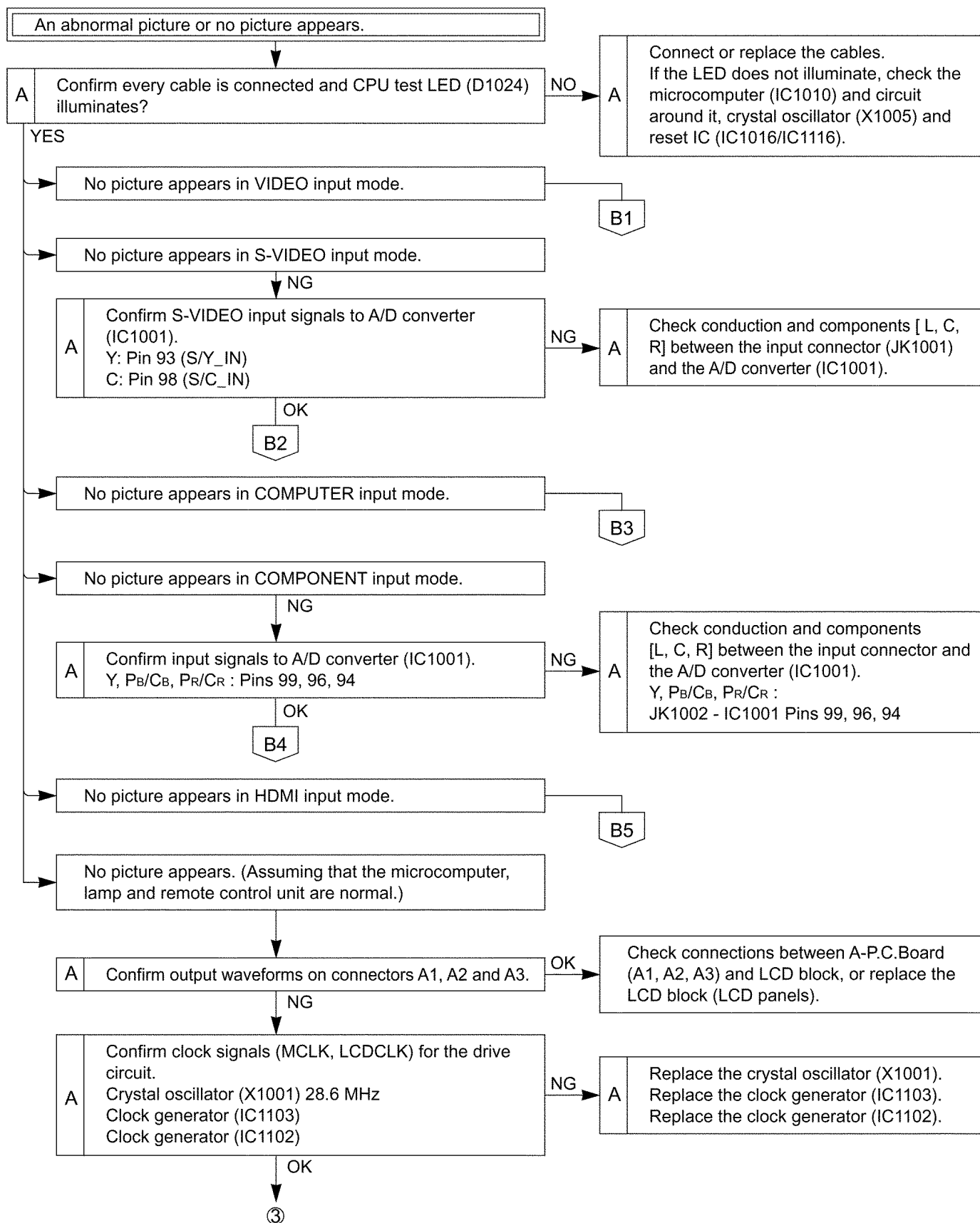


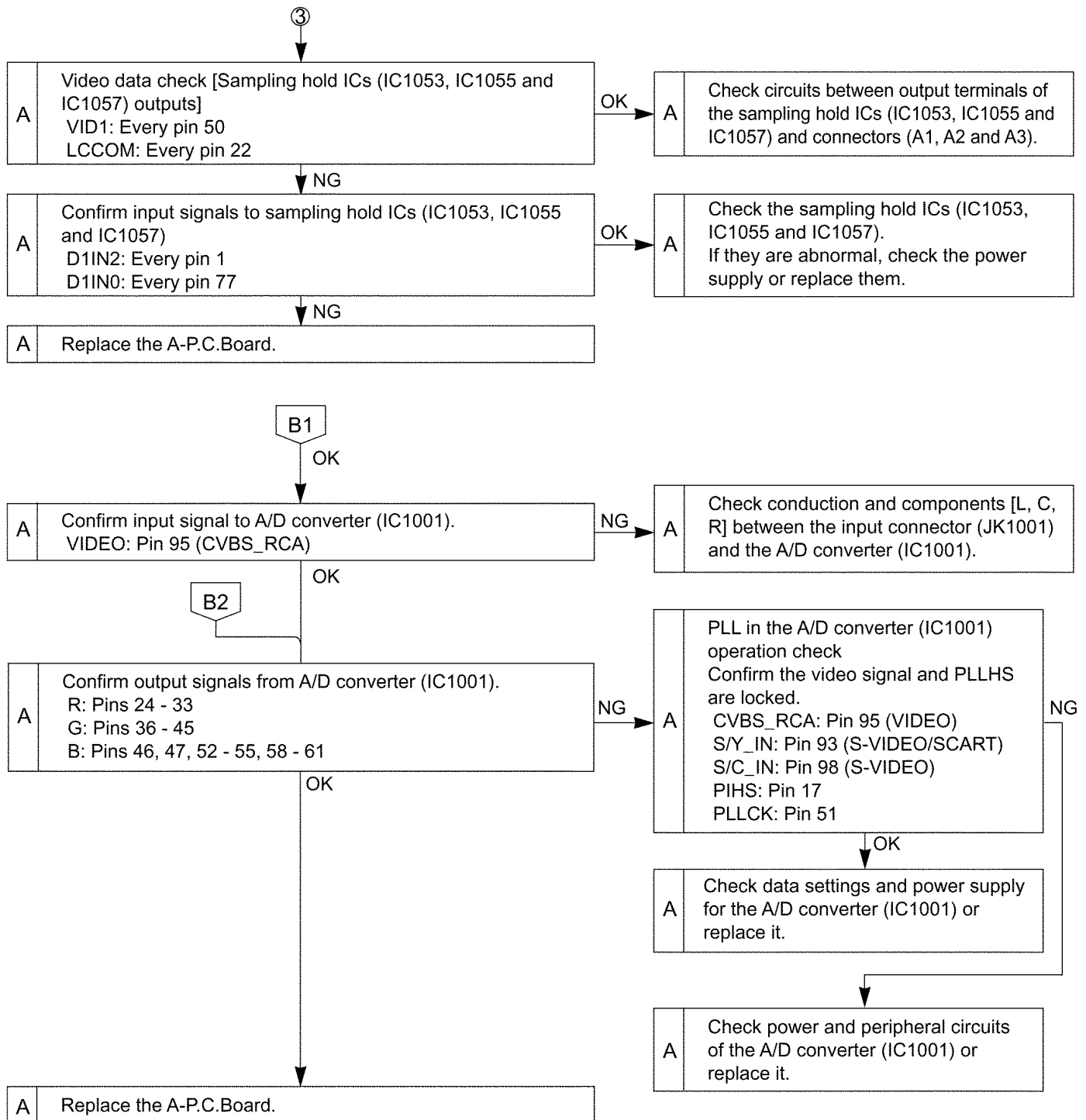


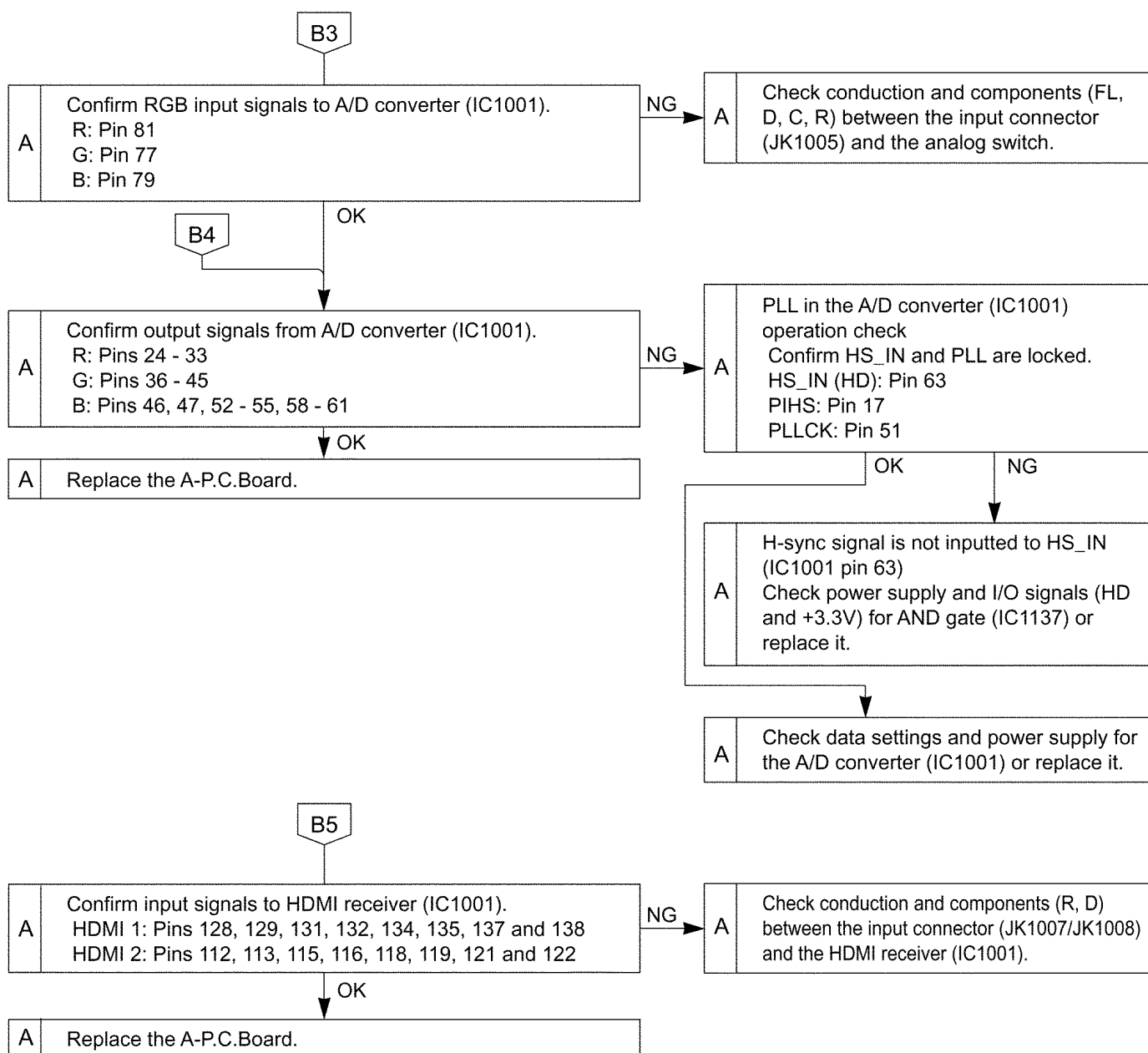


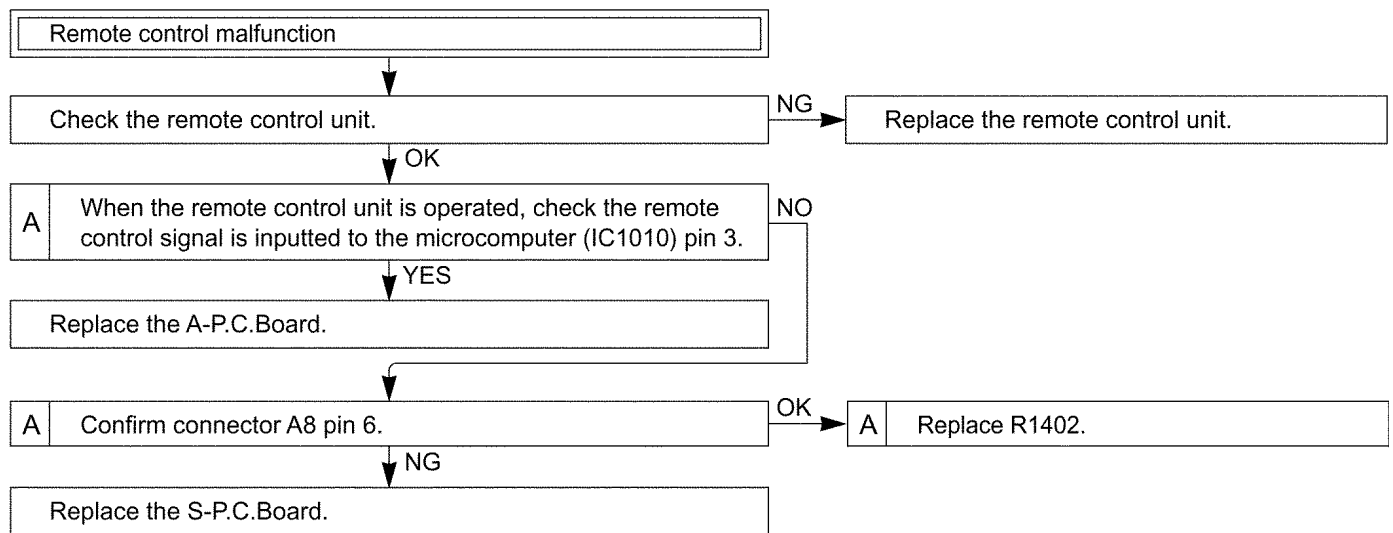








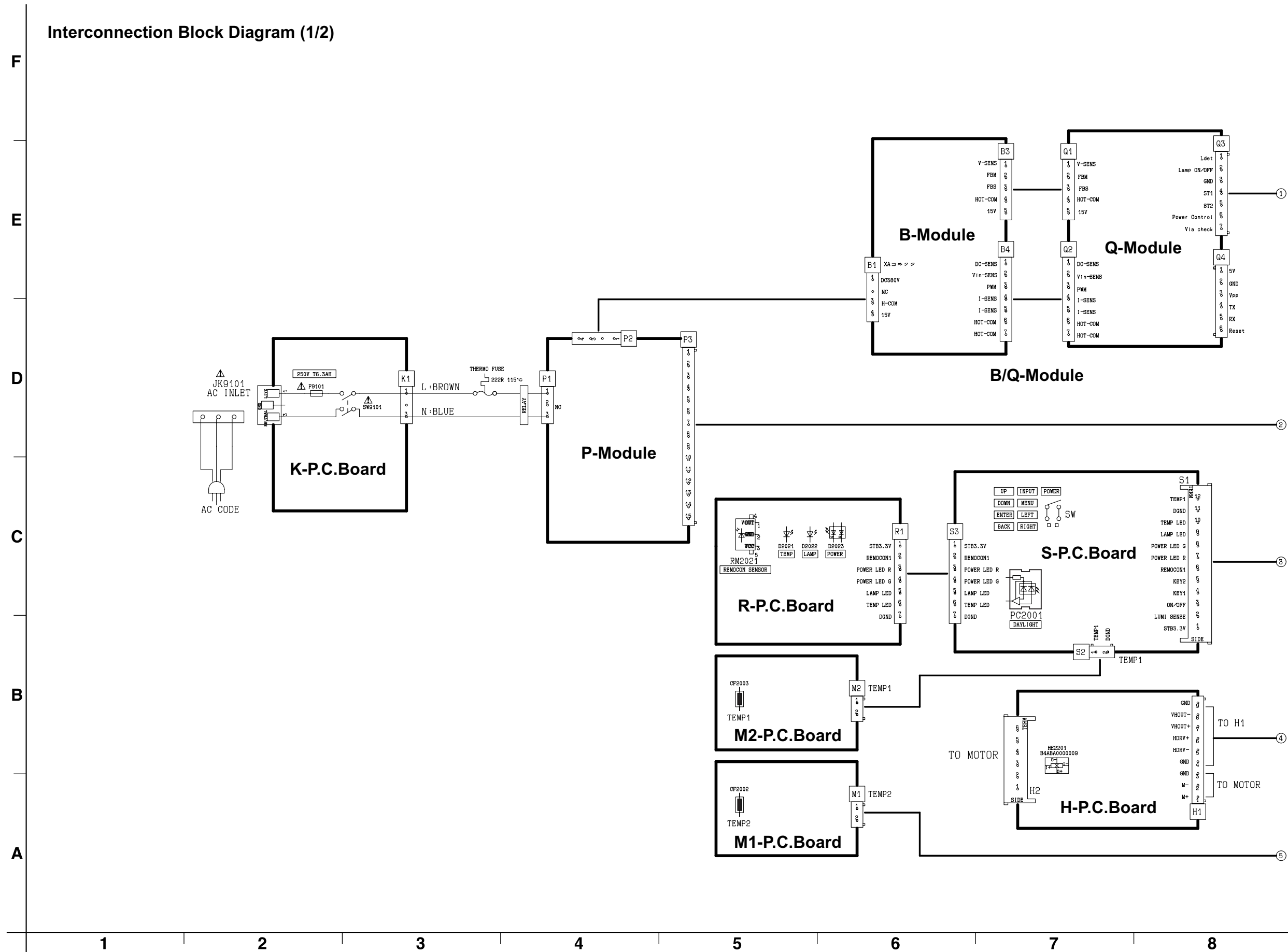




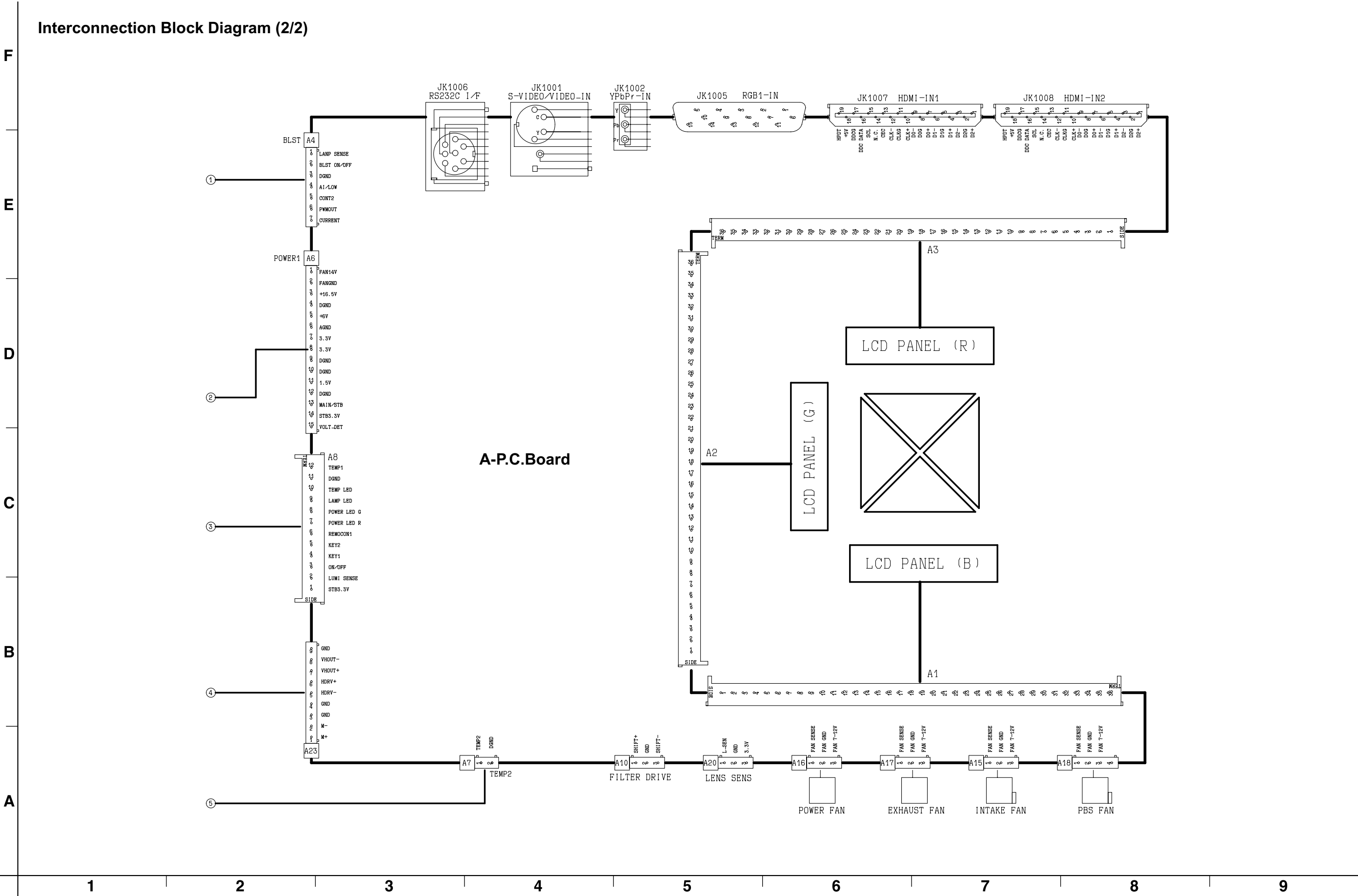
9 Interconnection Block Diagram

9.1. Interconnection Block Diagram (1/2)

Interconnection Block Diagram (1/2)

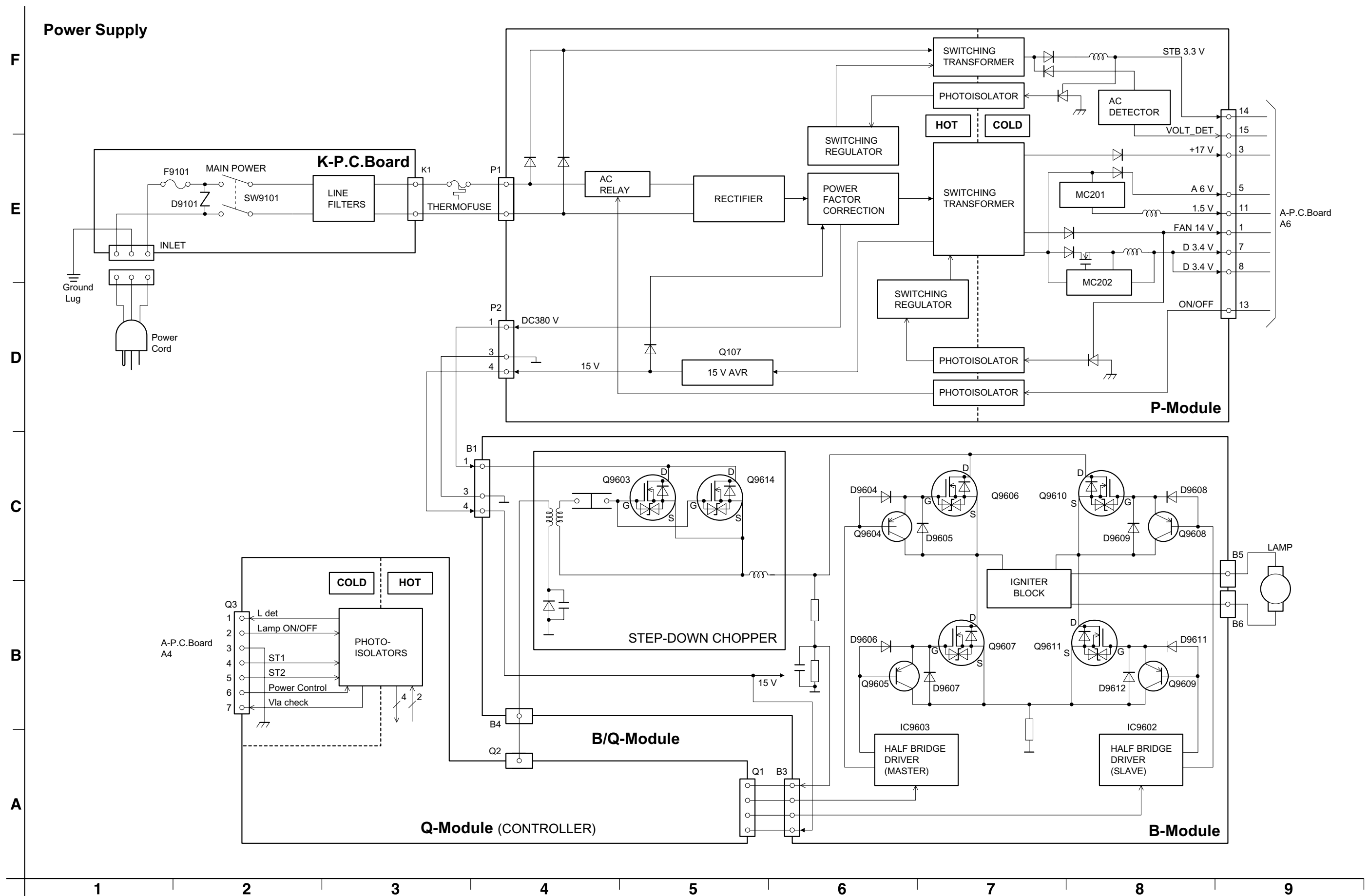


9.2. Interconnection Block Diagram (2/2)

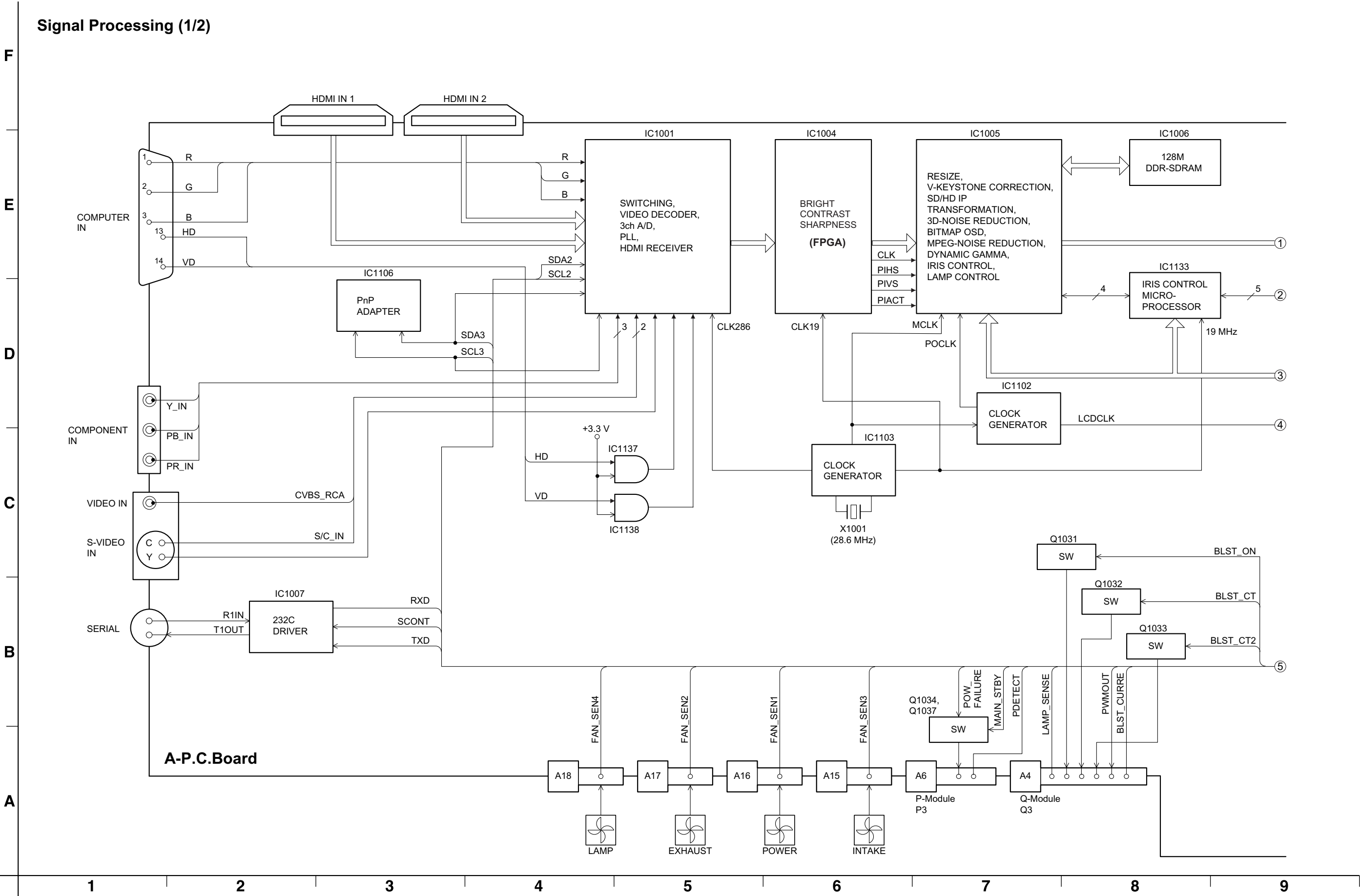


10 Block Diagram

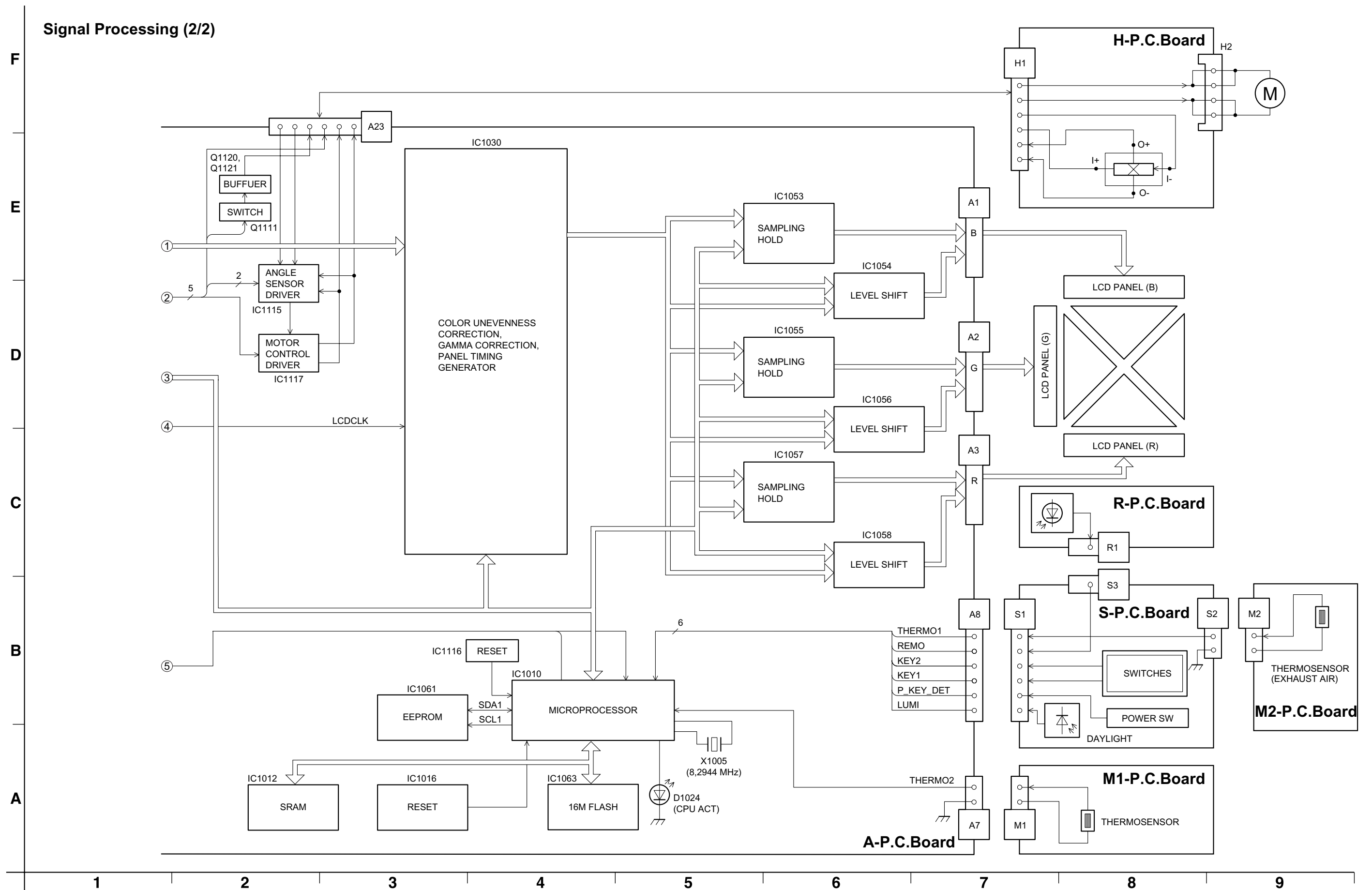
10.1. Power Supply



10.2. Signal Processing (1/2)



10.3. Signal Processing (2/2)



11 Schematic Diagram

Schematic Diagram for Model PT-AX200U

IMPORTANT SAFETY NOTICE

THE SHADED AREA ON THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM FIRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE SHADED AREAS OF THE SCHEMATIC.

Schematic Diagram for Model PT-AX200E

Important Safety Notice

Components identified by the international symbol  have special characteristics important for safety. When replacing any of these components, use only the manufacturer's specified ones.

Notes:

1. Resistor

All the resistors are carbon 1/4W resistors, unless marked as follows: The unit of resistance is an OHM [Ω] (K=1 000 M=1 000 000).

 : Nonflammable

 : Metal Oxide

 : Solid

 : Metal Film

 : Wire Wound

 : Fuse

2. Capacitor

 : Temperature Compensation

 : Electrolytic

 : Polyester

 : Bipolar

 : Metalized Polyester

 : Dipped Tantalum

 : Polypropylene

 : Z-Type

3. Coil

The unit of inductance is a H, unless otherwise noted.

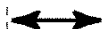
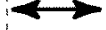
4. Test Point

 : Test Point

5. Voltage Measurement

The voltage is measured by an electronic voltmeter receiving the colorbar signal when all the customer's controls are set to the standard condition.

6. Color code for the links between diagrams and circuit boards

From/To		To/From	Color code
Block diagram		Schematic diagram	Magenta
Schematic diagram		Schematic diagram	Green
Schematic diagram		Circuit boards	Yellow
Schematic diagram		Waveforms	Cyan (Light blue)

7. HOT and COLD indications

The power circuit board contains a circuit area using a separate power supply to isolate the ground connection. The circuit is defined by HOT and COLD indications in the schematic diagram. Take the precautions below:

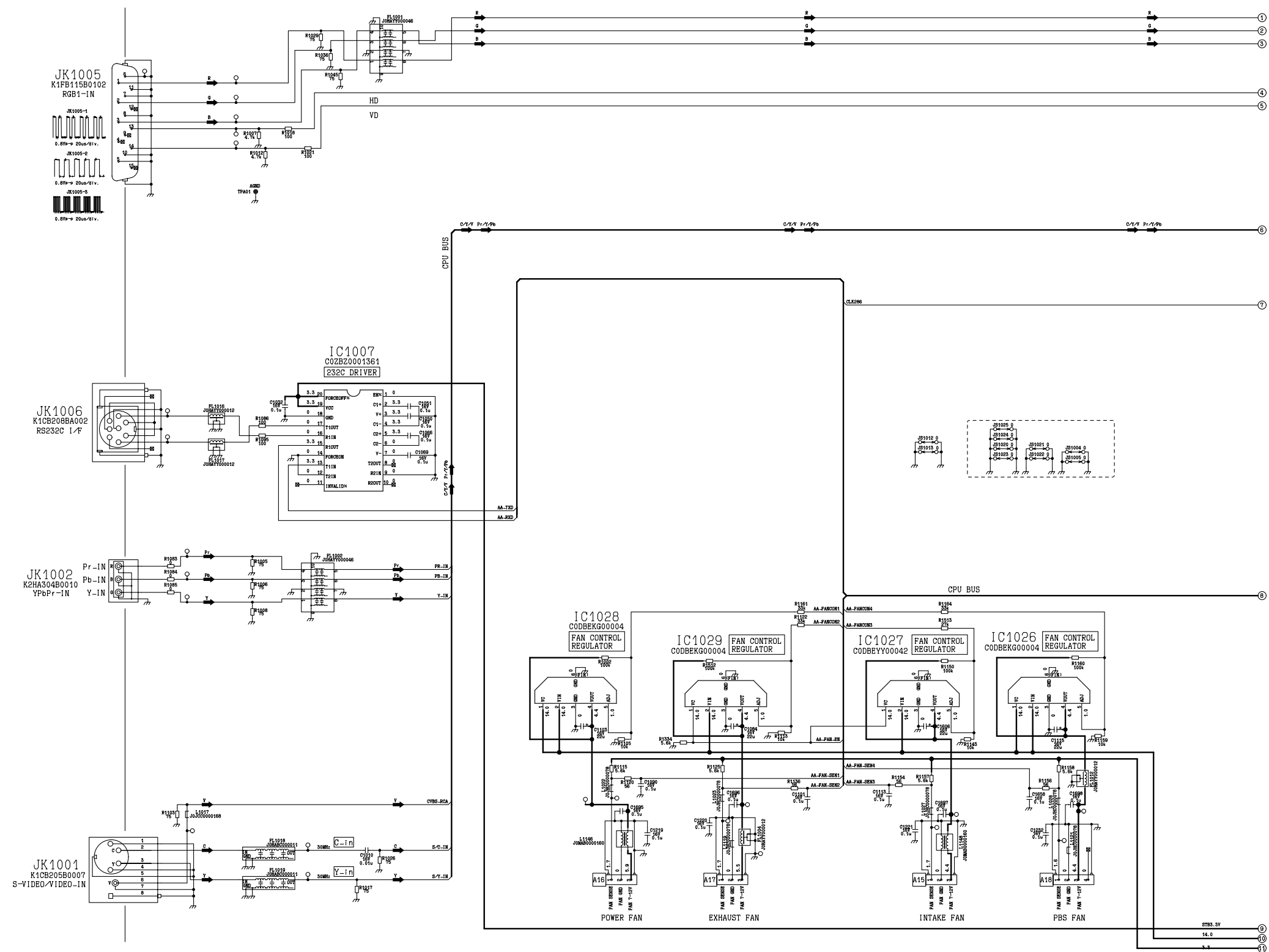
8. This schematic diagram is the latest at the time of printing and the subject to change without notice.

Precautions:

1. NEVER touch the HOT part or the HOT and COLD parts at the same time, or you may get an electric shock.
2. NEVER short-circuit the HOT and COLD circuits, or the fuse may blow and the parts may break.
3. NEVER connect an instrument such oscilloscope to the HOT and COLD circuit simultaneously, or the fuse may blow. Connect the ground of instruments to the ground of the circuit being measured.
4. MAKE SURE to unplug the power cord from the power outlet before removing the chassis.

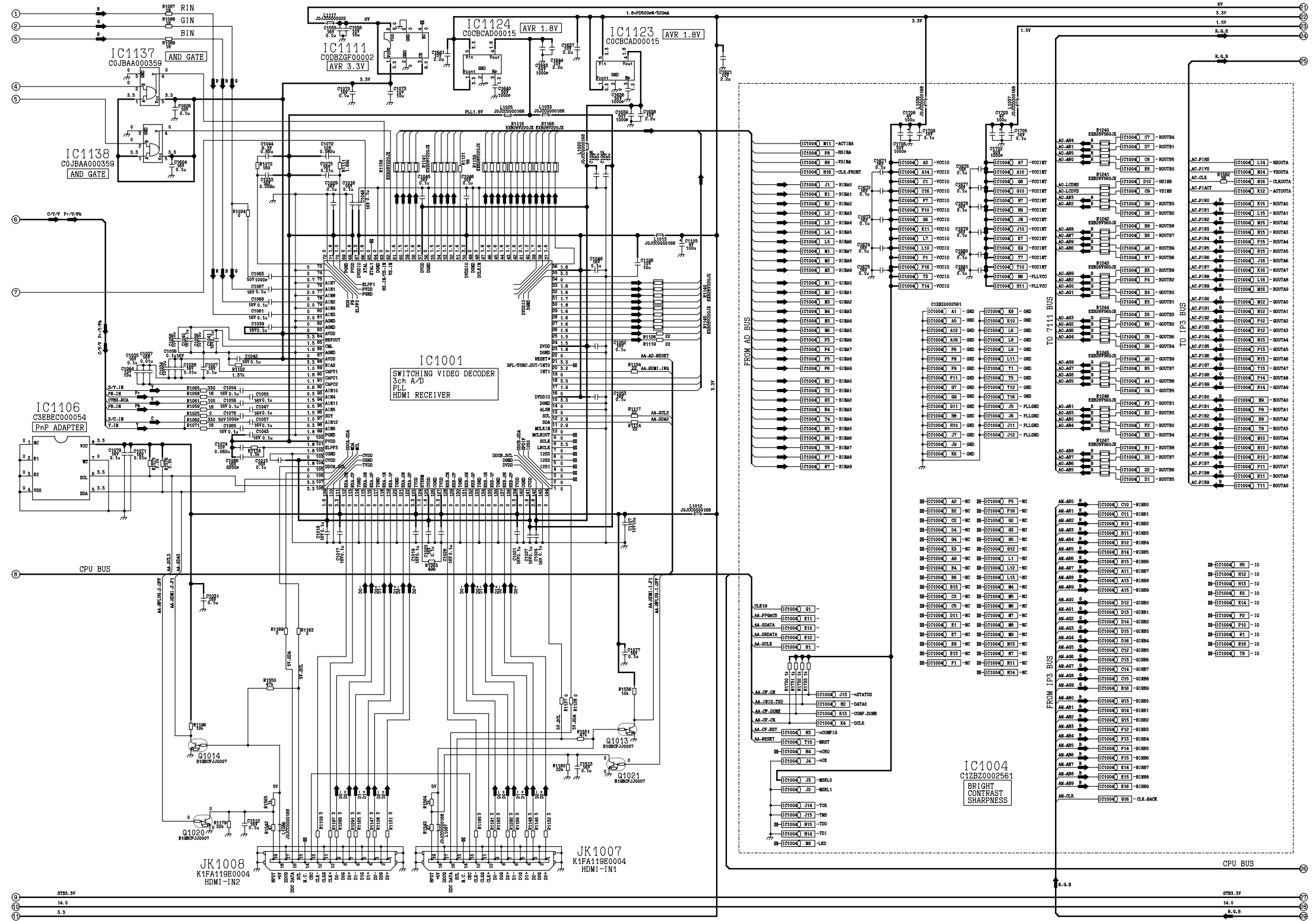
11.1. A-P.C.Board (1/7)

A-P.C.Board TXANP01VKF7 (1/7)



11.2. A-P.C.Board (2/7)

A-P.C.Board TXANP01VKF7 (2/7)



11.3. A-P.C.Board (3/7)

A-P.C.Board TXANP01VKF7 (3/7)

F

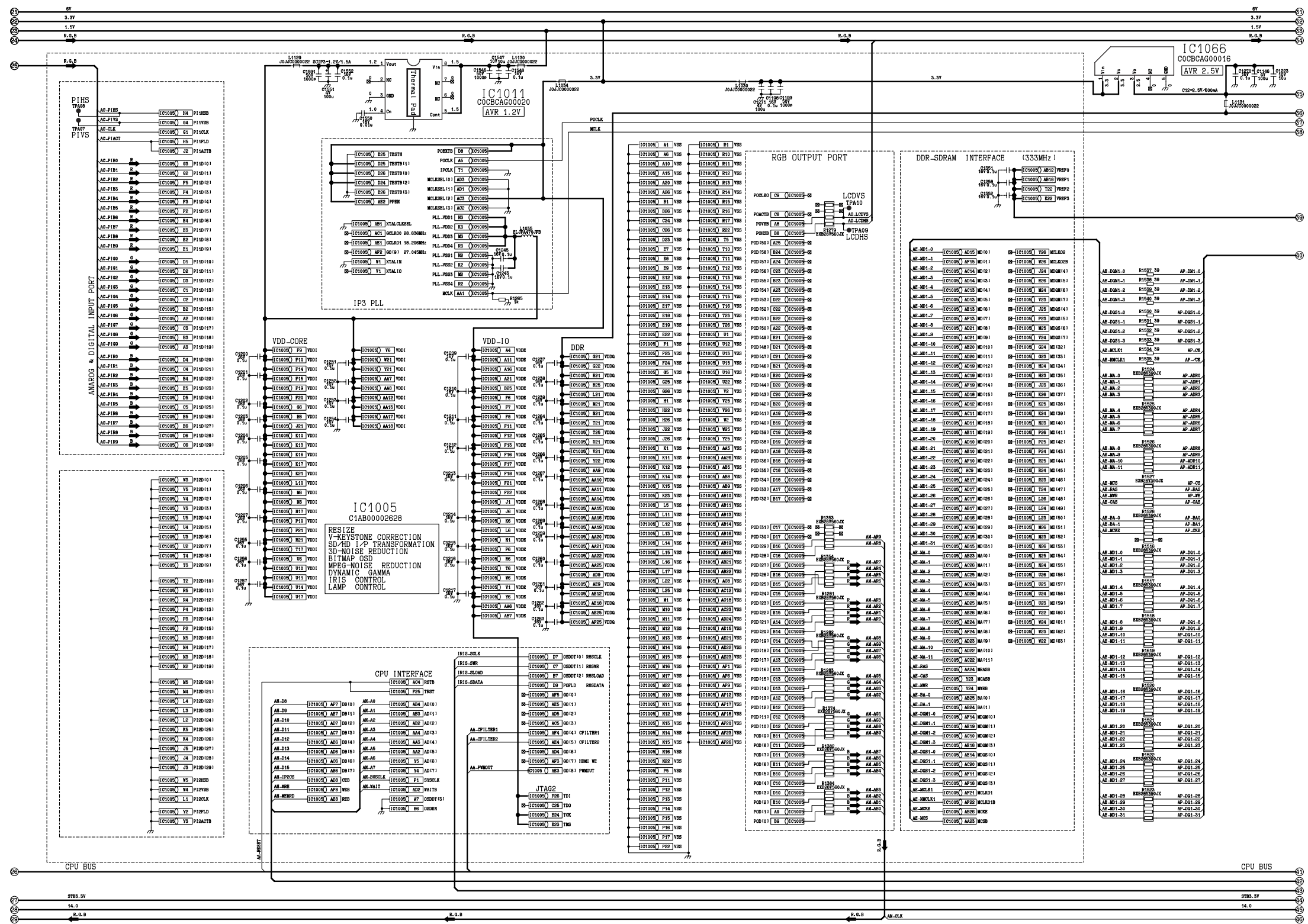
E

D

C

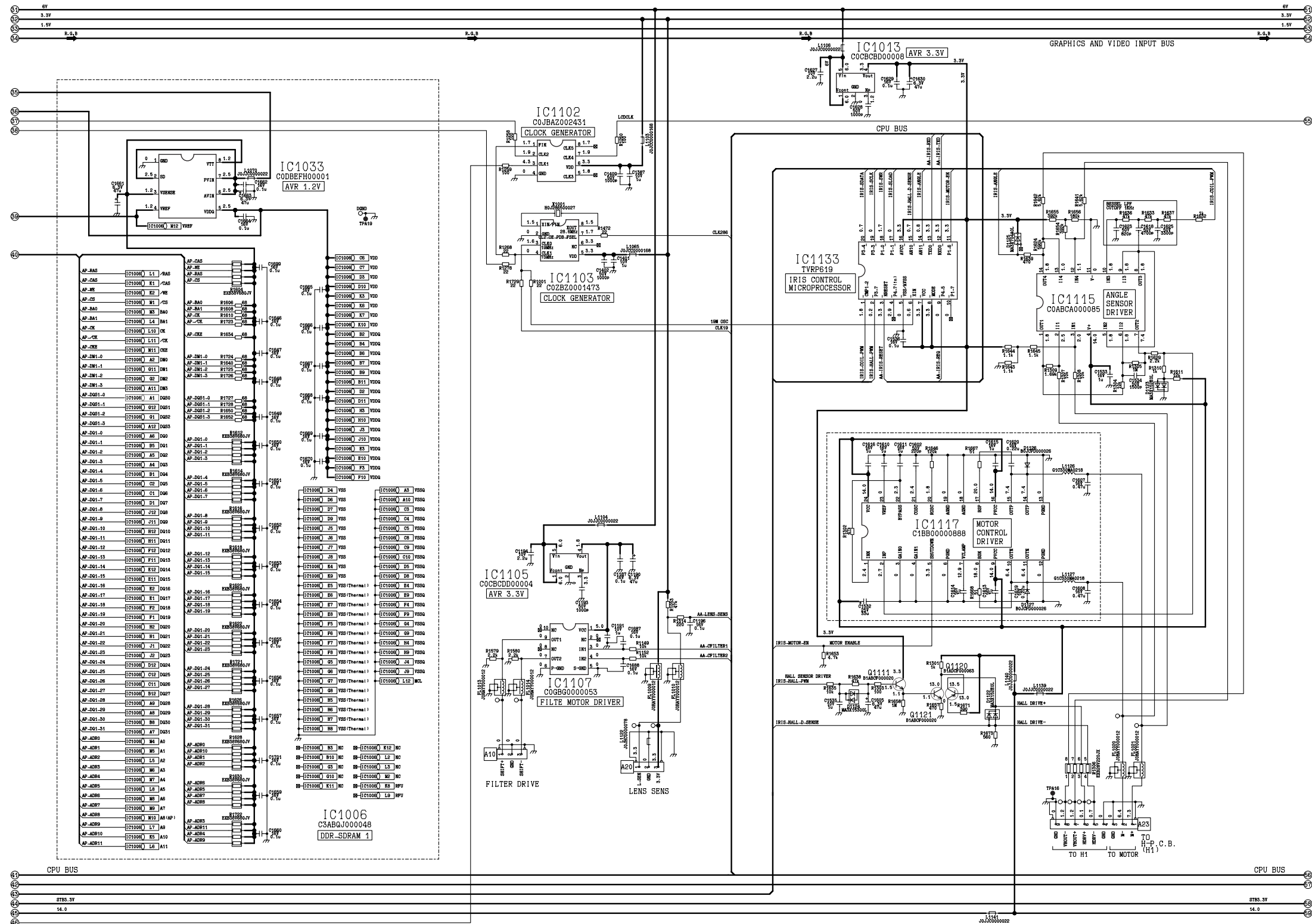
B

A



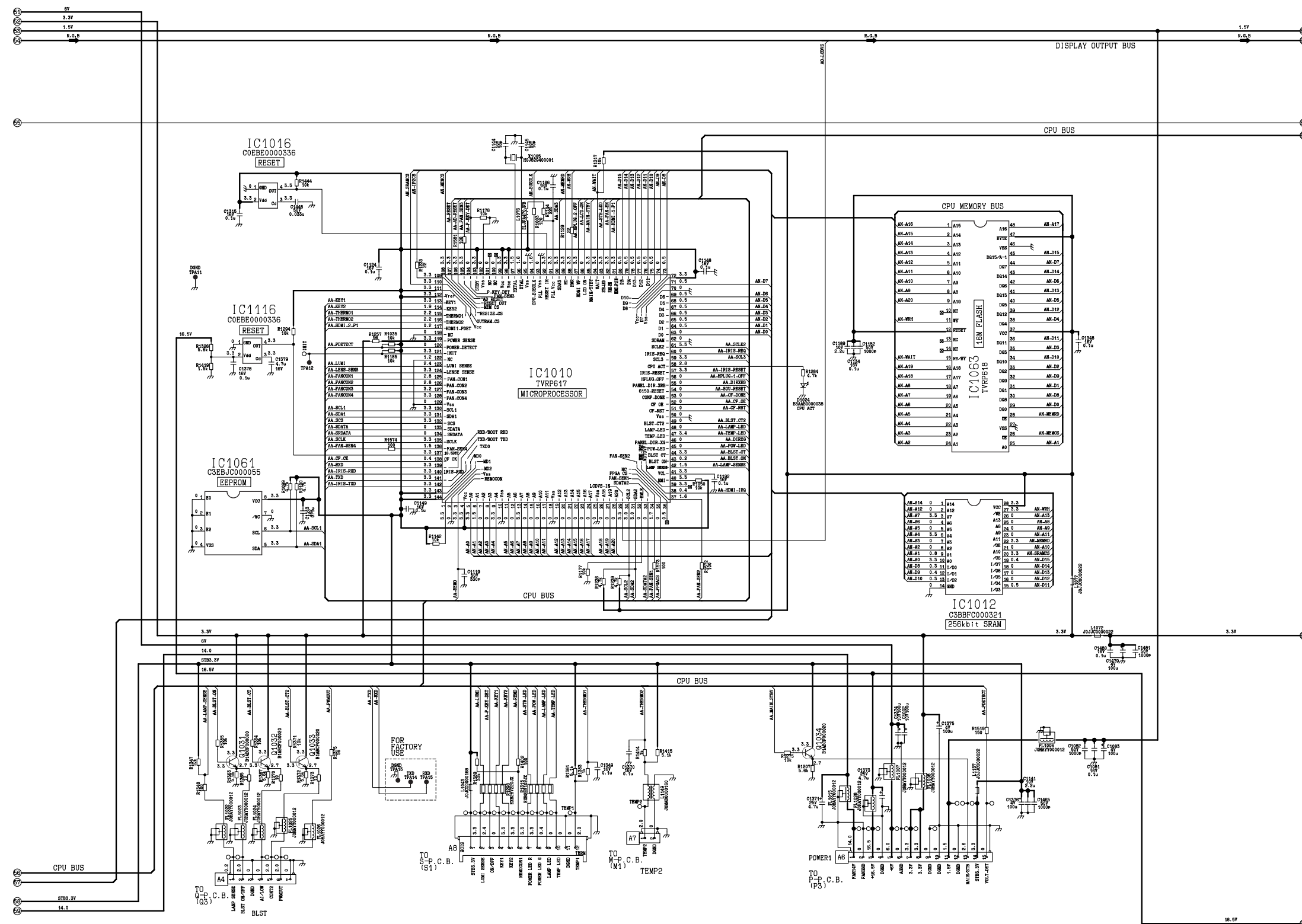
11.4. A-P.C.Board (4/7)

A-P.C.Board TXANP01VKF7 (4/7)



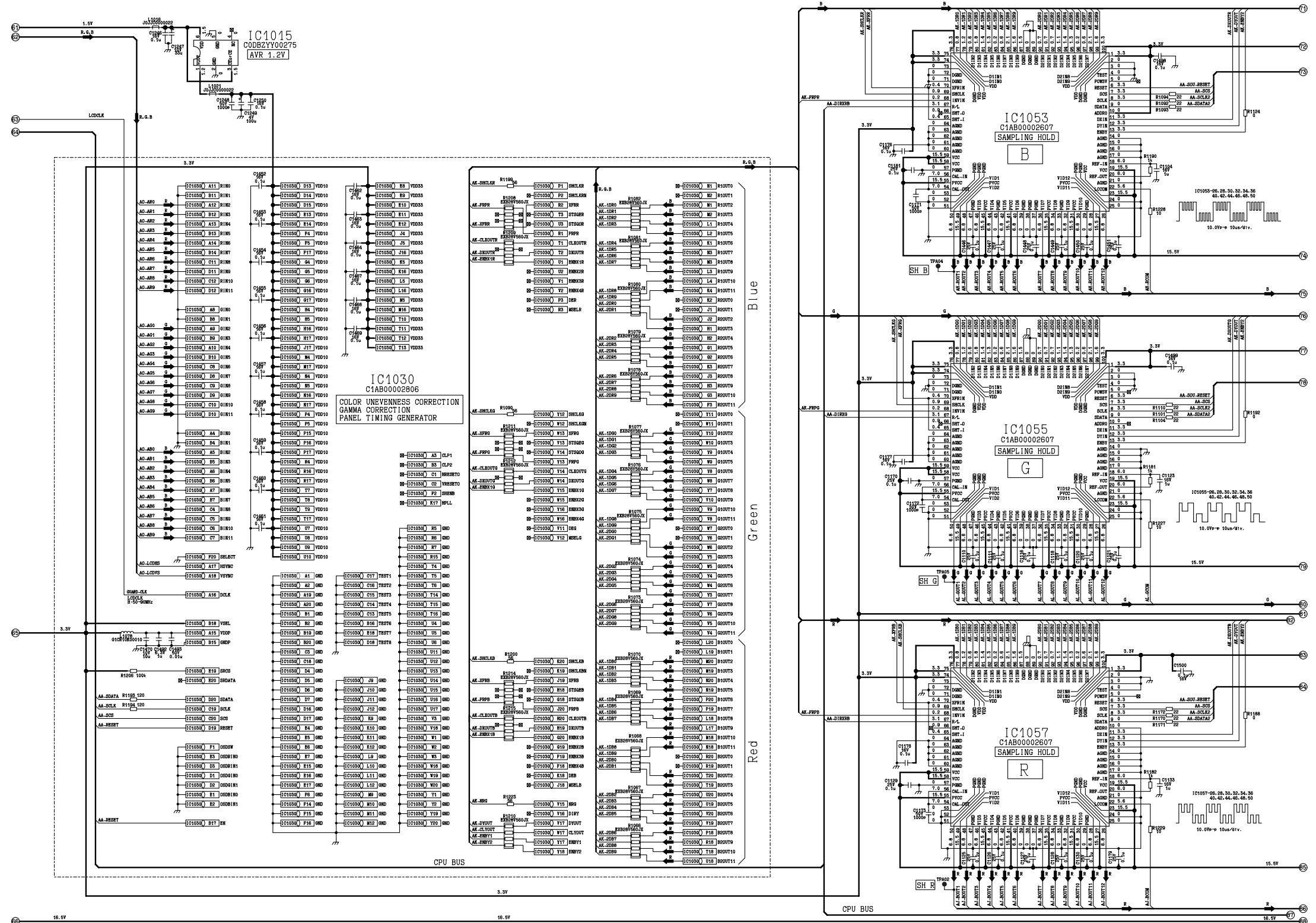
11.5. A-P.C.Board (5/7)

A-P.C.Board TXANP01VKF7 (5/7)



11.6. A-P.C.Board (6/7)

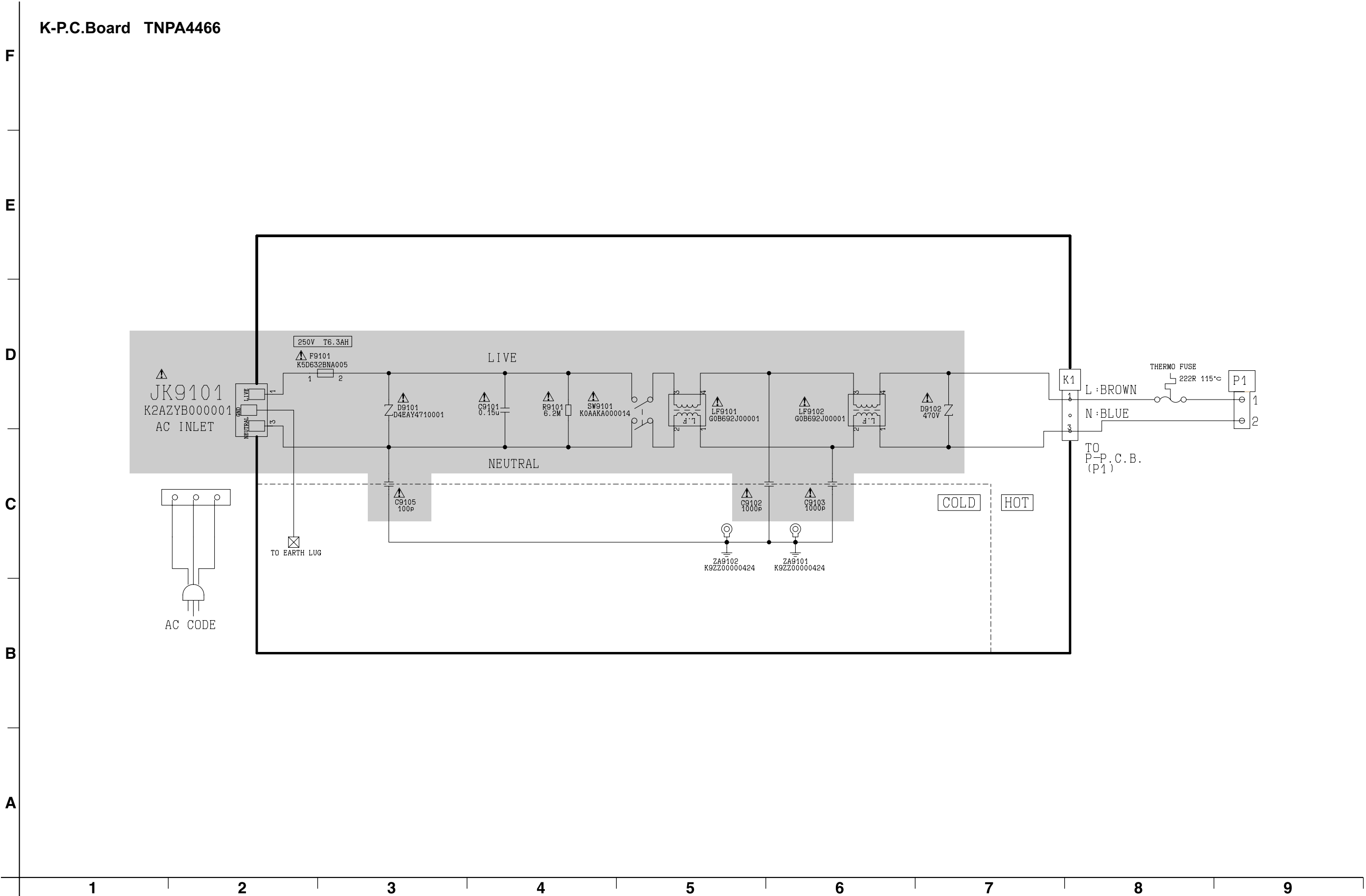
A-P.C.Board TXANP01VKF7 (6/7)



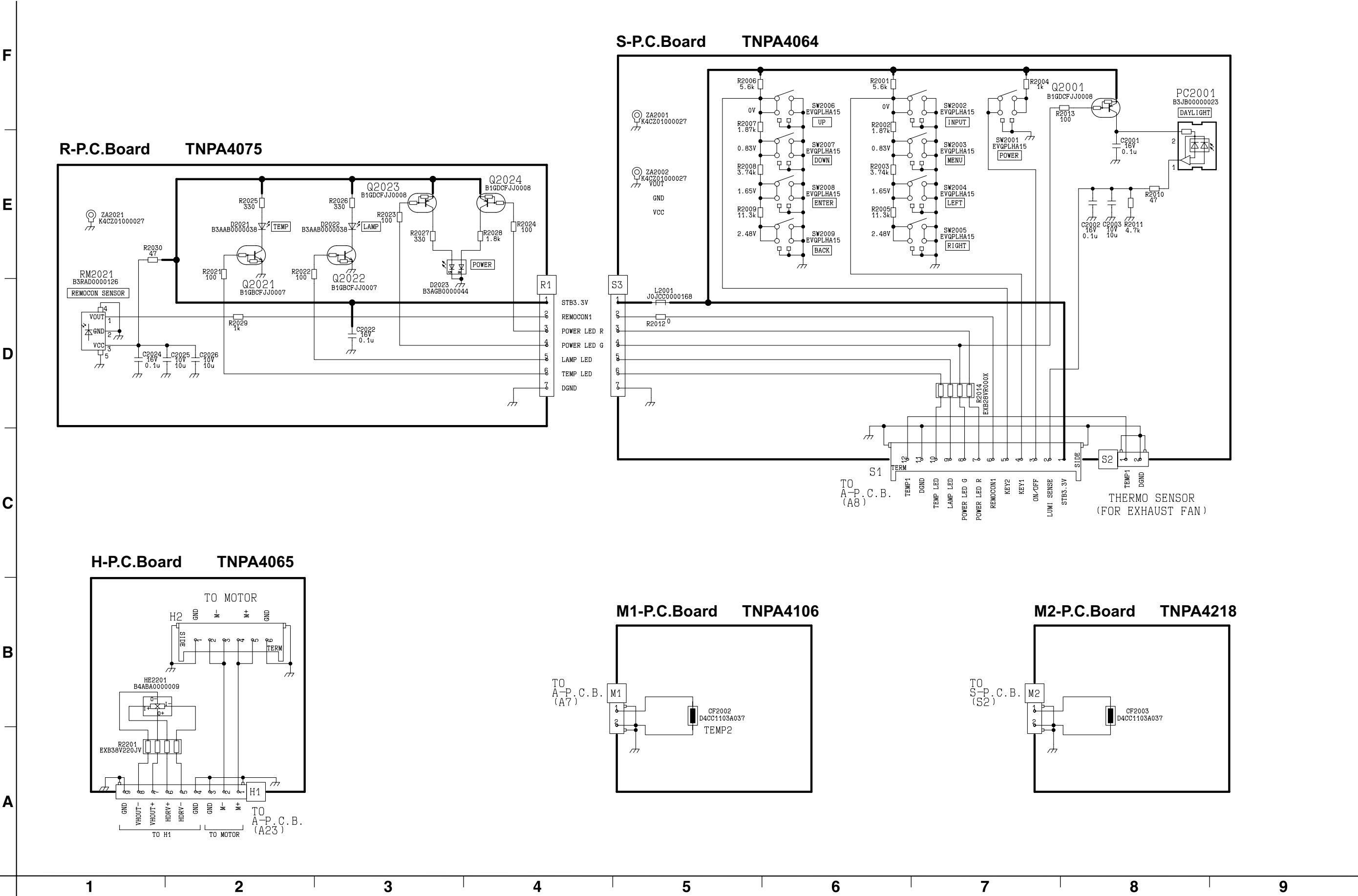
A-P.C.Board TXANP01VKF7 (7/7)



11.8. K-P.C.Board



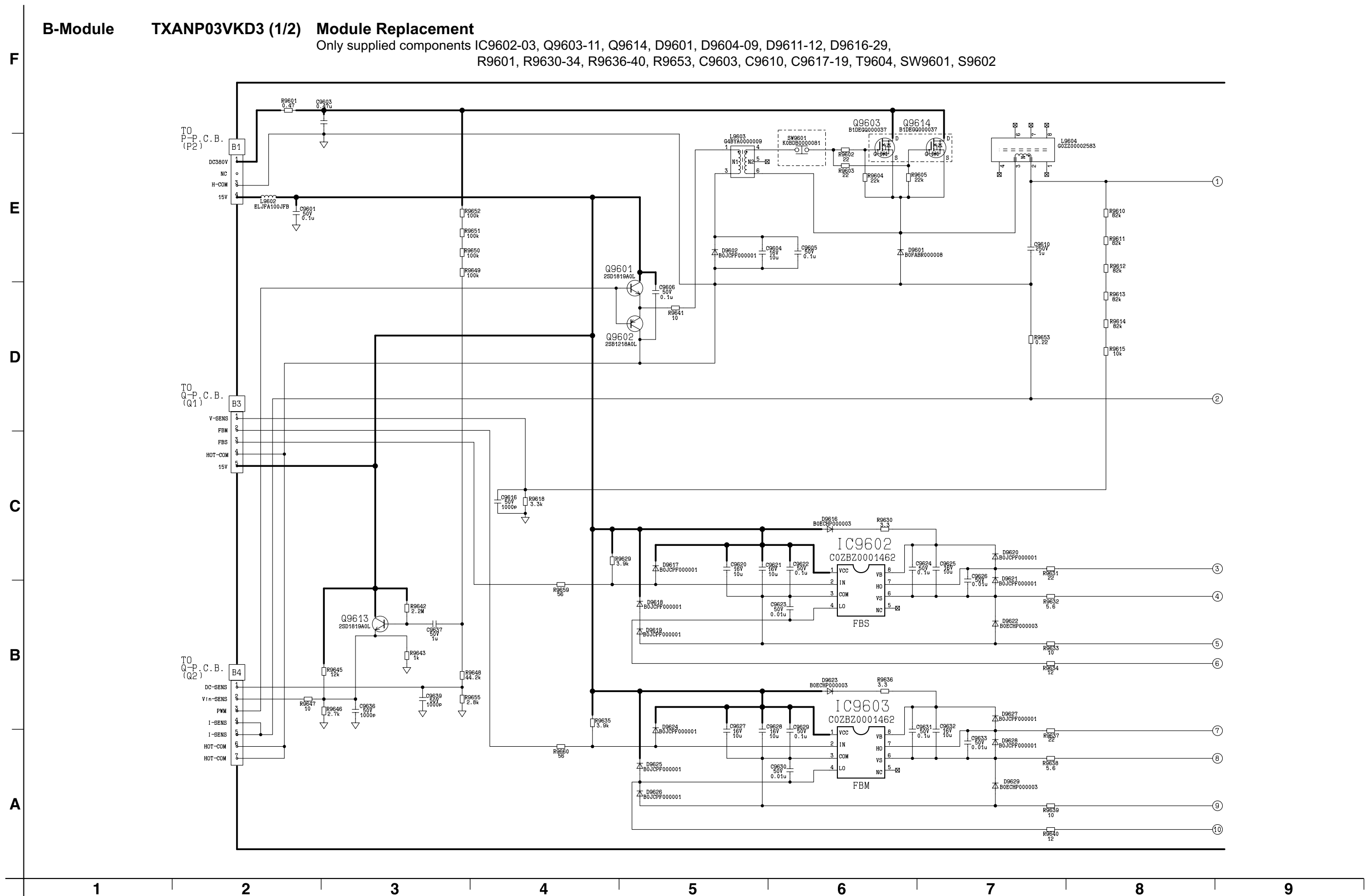
11.9. R-P.C.Board, S-P.C.Board, H-P.C.Board, M1-P.C.Board, M2-P.C.Board



11.10. B-Module (1/2)

B-Module TXANP03VKD3 (1/2) Module Replacement

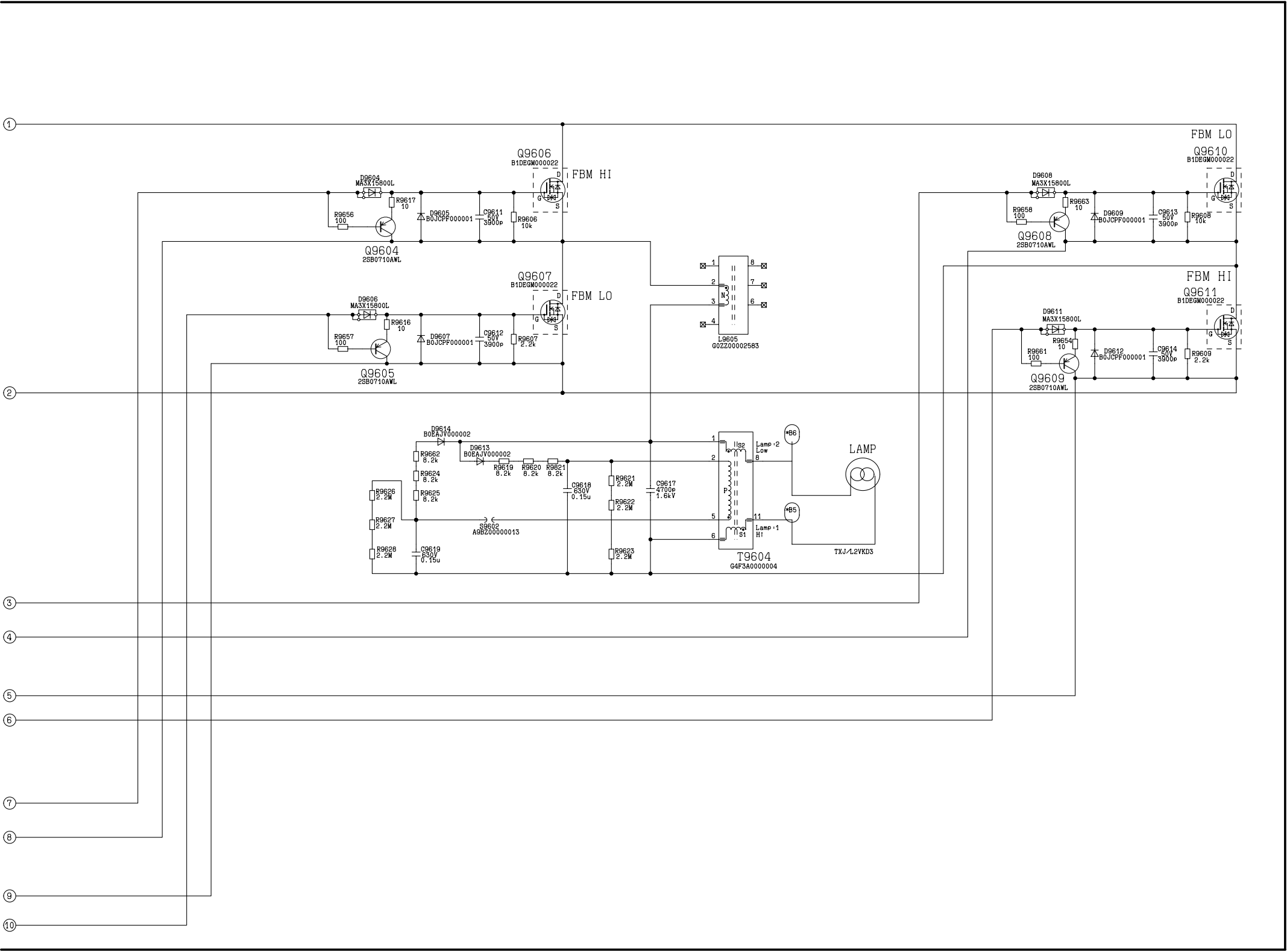
Only supplied components IC9602-03, Q9603-11, Q9614, D9601, D9604-09, D9611-12, D9616-29,
R9601, R9630-34, R9636-40, R9653, C9603, C9610, C9617-19, T9604, SW9601, S9602



11.11. B-Module (2/2)

B-Module TXANP03VKD3 (2/2) Module Replacement

Only supplied components IC9602-03, Q9603-11, Q9614, D9601, D9604-09, D9611-12, D9616-29, R9601, R9630-34, R9636-40, R9653, C9603, C9610, C9617-19, T9604, SW9601, S9602



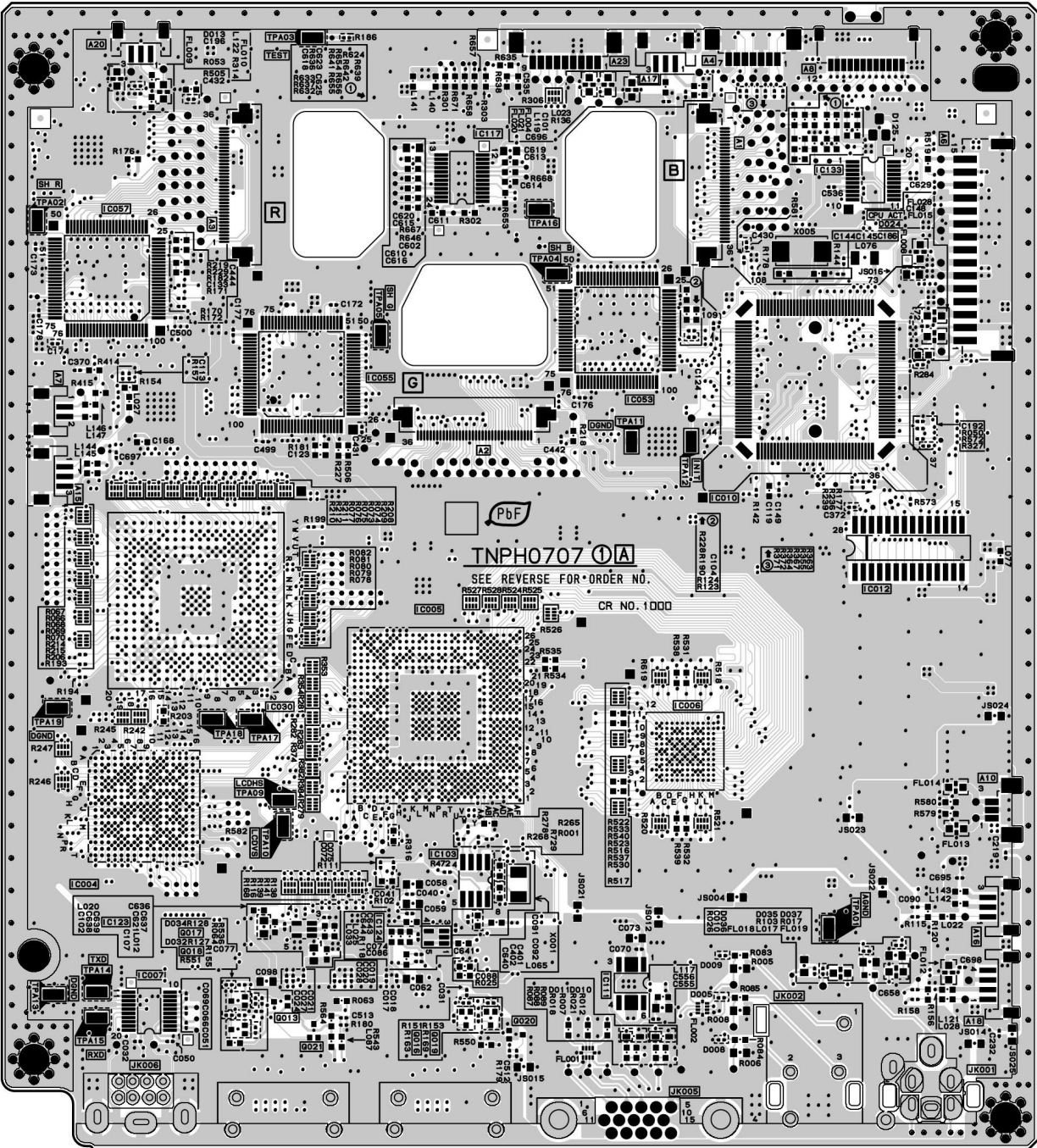
12 Circuit Boards

12.1. A-P.C.Board

A-P.C.Board TXANP01VKF7
(Foil Side)

A-P.C.Board (Foil Side)									
IC		TRANSISTOR		TP					
IC1004	B-1	IC1055	D-2	Q1013	A-2	TPA01	A-4	TPA11	C-3
IC1005	B-2	IC1057	D-1	Q1020	A-3	TPA02	D-1	TPA12	C-3
IC1006	B-3	IC1103	B-2	Q1021	A-2	TPA03	E-2	TPA13	A-1
IC1007	A-1	IC1111	A-3			TPA04	D-3	TPA14	A-1
IC1010	D-4	IC1117	D-2			TPA05	D-2	TPA15	A-1
IC1012	C-4	IC1123	A-1			TPA09	B-2	TPA16	D-3
IC1030	C-1	IC1124	A-2			TPA10	B-2	TPA19	B-1
IC1053	D-3	IC1133	D-4						

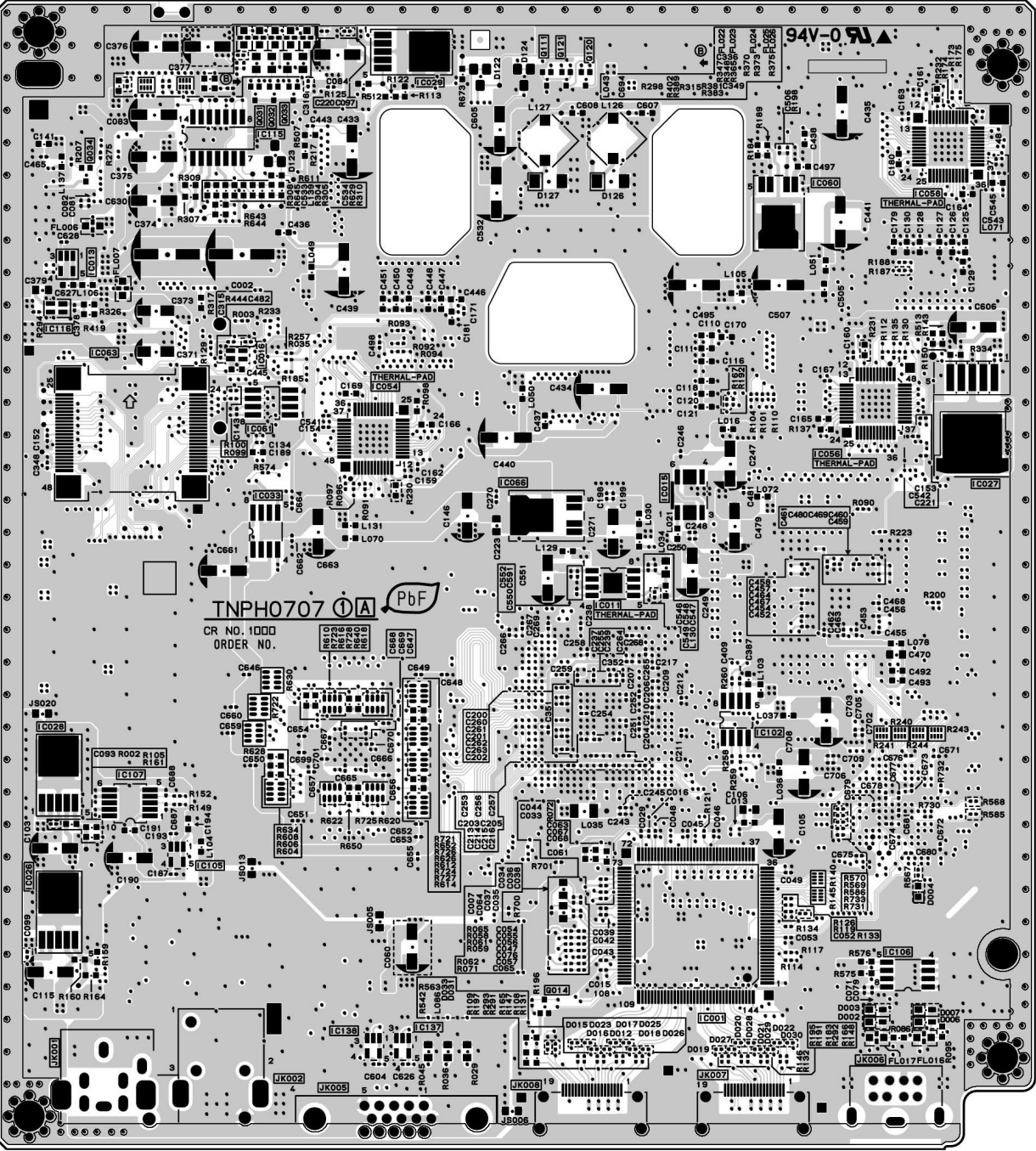
ADDRESS INFORMATION



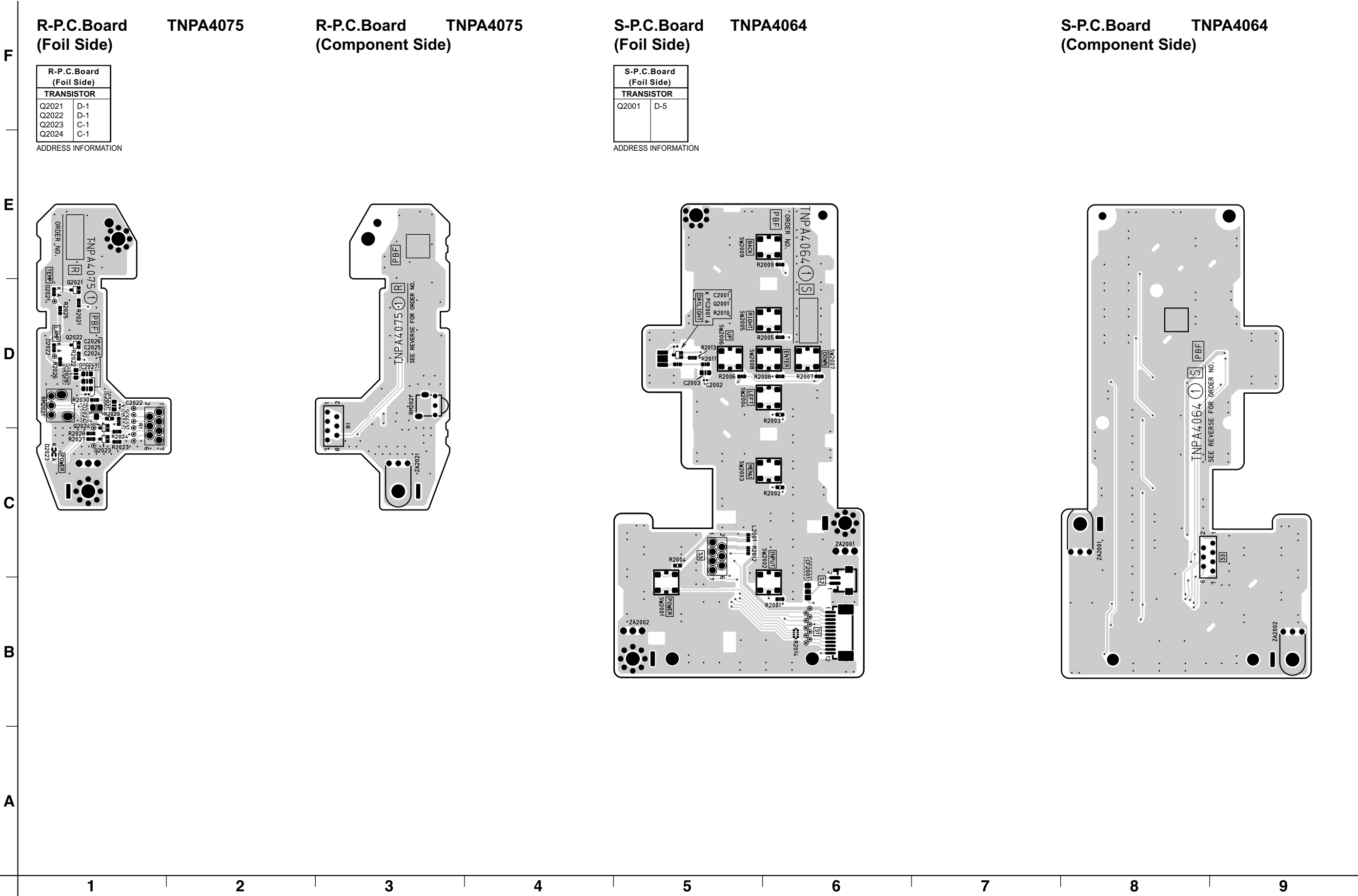
A-P.C.Board TXANP01VKF7
(Component Side)

A-P.C.Board (Component Side)									
IC		TRANSISTOR							
IC1001	A-8	IC1033	C-6	IC1105	B-6	Q1014	A-7		
IC1011	C-7	IC1054	C-6	IC1106	A-8	Q1031	E-6		
IC1013	D-5	IC1056	C-8	IC1107	B-5	Q1032	E-6		
IC1015	C-8	IC1058	D-9	IC1115	D-6	Q1033	E-6		
IC1016	D-6	IC1060	D-8	IC1116	D-5	Q1034	D-5		
IC1026	B-5	IC1061	C-6	IC1137	A-7	Q1111	E-7		
IC1027	C-9	IC1063	C-5	IC1138	A-6	Q1120	E-7		
IC1028	B-5	IC1066	C-7			Q1121	E-7		
IC1029	E-7	IC1102	B-8						

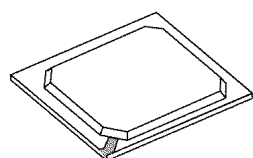
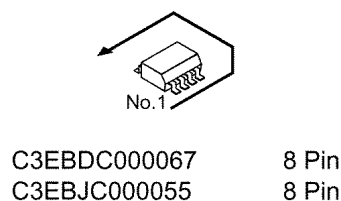
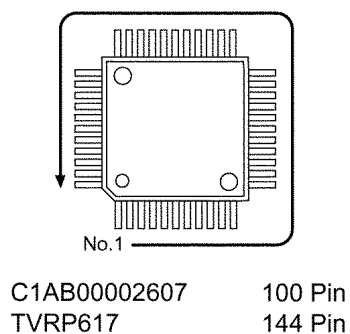
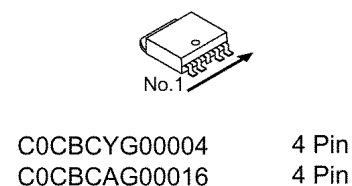
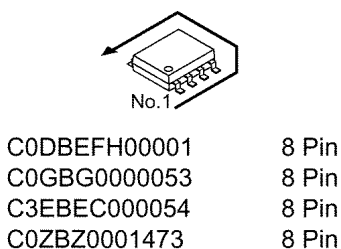
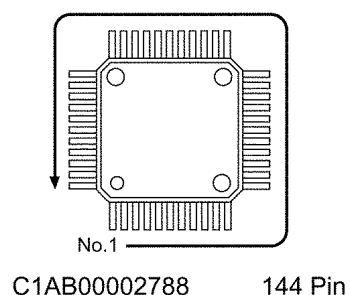
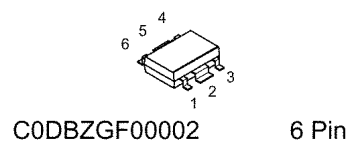
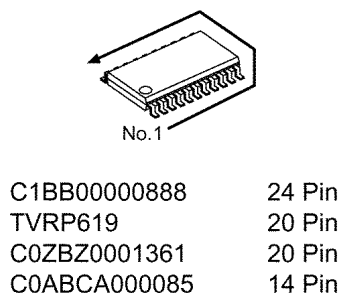
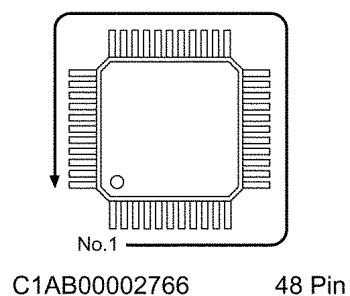
ADDRESS INFORMATION



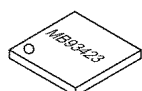
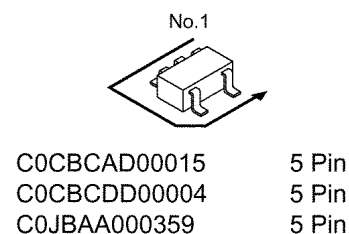
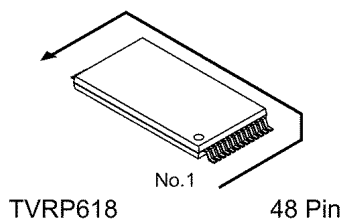
12.2. R-P.C.Board, S-P.C.Board



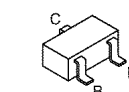
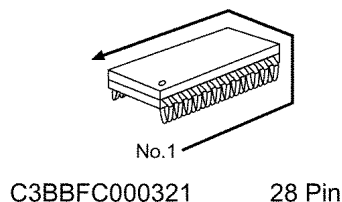
13 Terminal guide of ICs and transistors



C1AB00002806
C1AB000022628



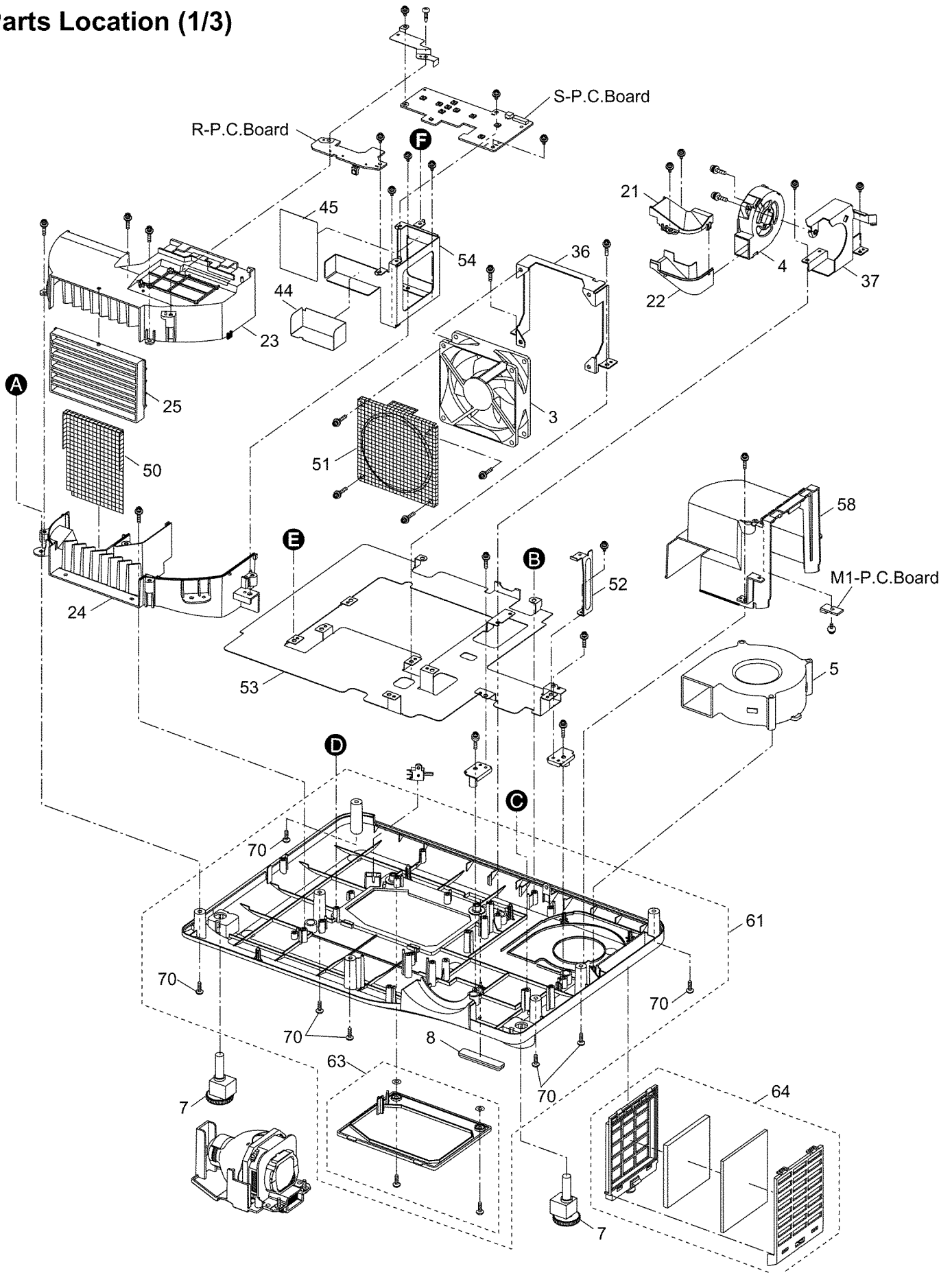
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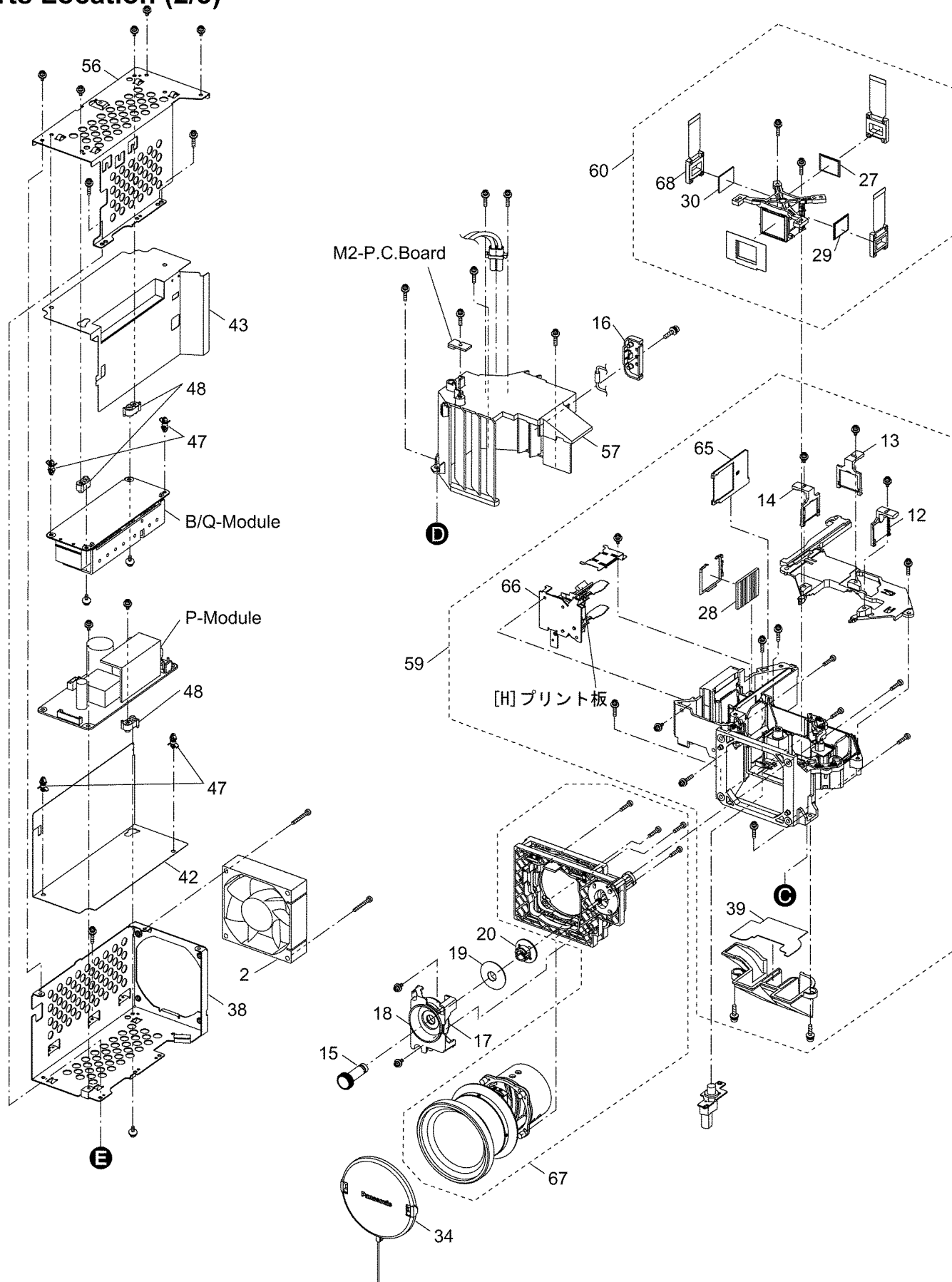
2SB1218A0L
2SD1819A0L

14 Exploded Views

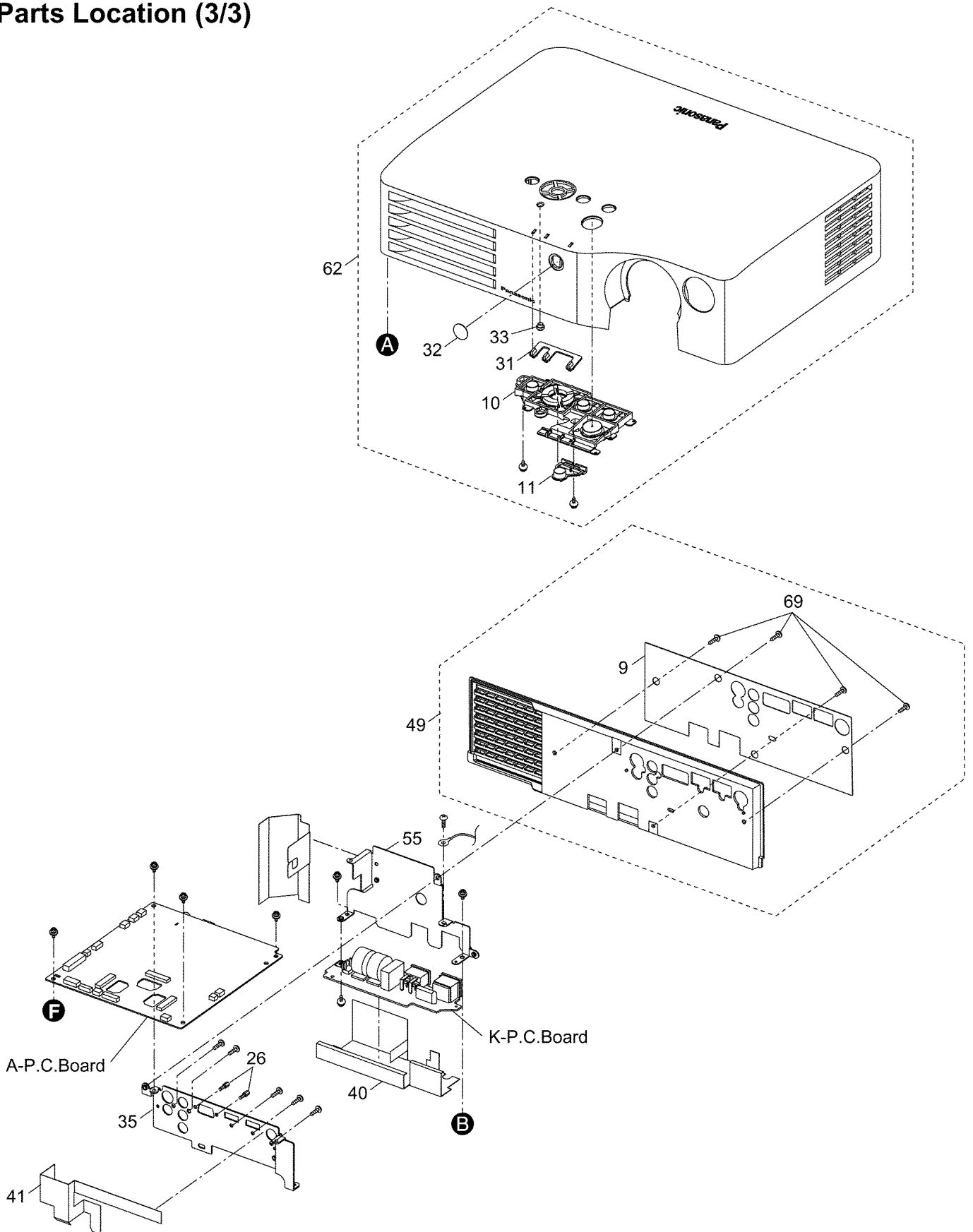
Parts Location (1/3)



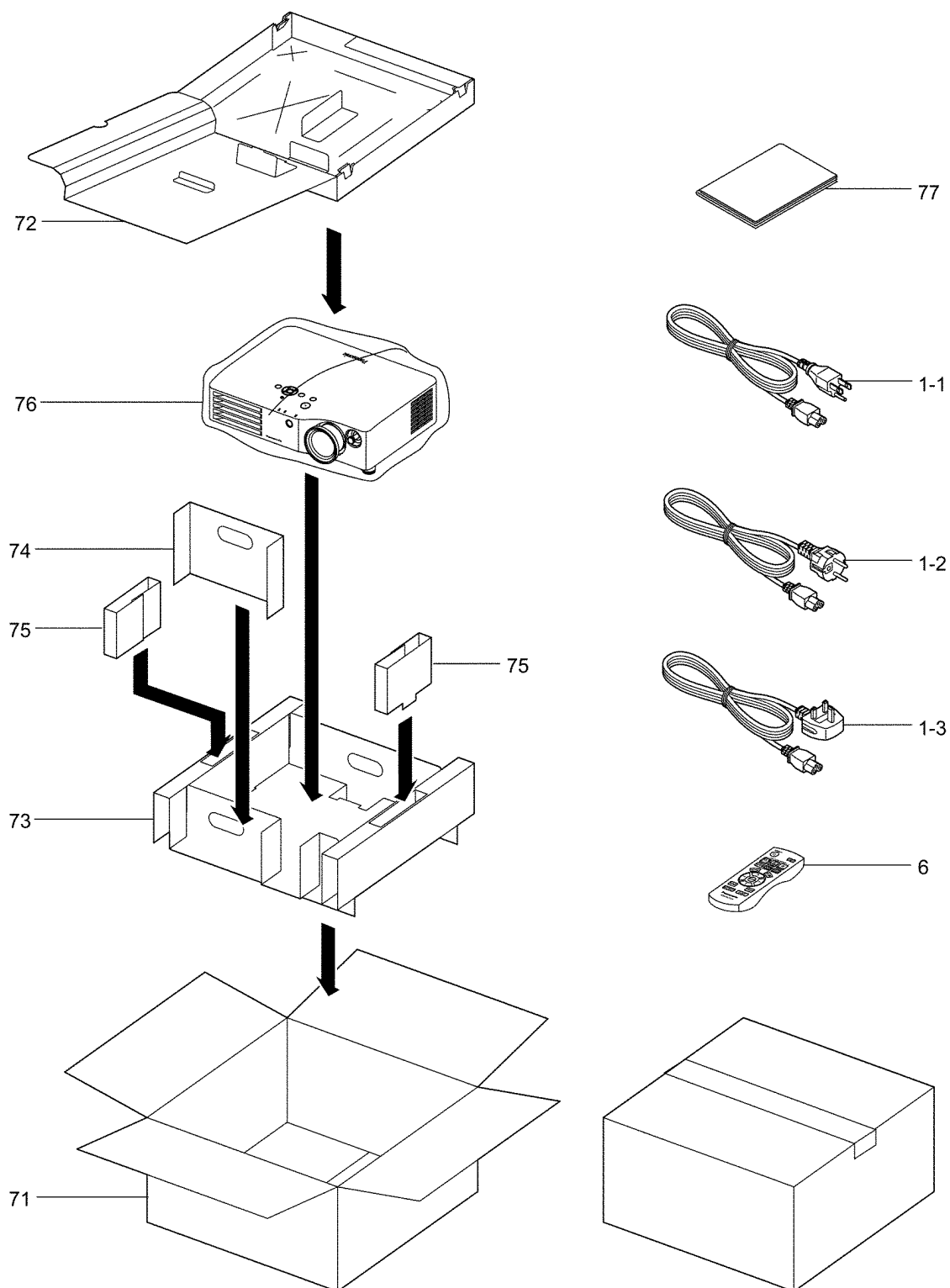
Parts Location (2/3)



Parts Location (3/3)



Packing Parts



15 Replacement Parts List

Important Safety Notice

Components identified by the International symbol $\triangle$ have special characteristics important for safety.
When replacing any of these components, use only the manufacturer's specified parts.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W

TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Carbon	F : $\pm 1\%$
F : Fuse	G : $\pm 2\%$
M : Metal Oxide	J : $\pm 5\%$
Metal Film	K : $\pm 10\%$
S : Solid	M : $\pm 20\%$
W : Wire Wound	

2. Capacitor

Example:

ECKF1H103ZF C 0.01PF, Z, 50V

TYPE ALLOWANCE

TYPE	ALLOWANCE
C : Ceramic	C : $\pm 0.25\text{ pF}$
E : Electrolytic	D : $\pm 0.5\text{ pF}$
P : Polyester	F : $\pm 1\text{ pF}$
PP : Polypropylene	J : $\pm 5\%$
S : Polystyrol	K : $\pm 10\%$
T : Tantalum	L : $\pm 15\%$
	M : $\pm 20\%$
	P : $+100\%, -0\%$
	Z : $+80\%, -20\%$

Notes:

Printed circuit board assembly with mark (RTL) is no longer available after production discontinuation of the complete set.

Ref. No.	Part No.	Part Name & Description	Remarks
		[MECHANICAL PARTS]	
	D4CDY4930003	TEMP SENSOR	
	J0KG00000052	CORE	$\triangle$
1-1	K2CG3FR00001	POWER CORD	$\triangle$ AX200U
1-2	K2CM3FR00002	POWER CORD (EUROPE)	$\triangle$ AX200E
1-3	K2CT3FR00003	POWER CORD (ENG)	$\triangle$ AX200E
2	L6FAYYYH0028	POWER FAN	$\triangle$
3	L6FAYYYH0029	VENTILATION FAN	$\triangle$
4	L6FCYYYH0009	LAMP FAN	$\triangle$
5	L6FCYYYH0010	SIROCCO FAN (INHALATION)	$\triangle$
6	N2QAYB000194	REMOTE CONTROLLER	
7	TBLB0047-1	ADJUST LEG	
8	TBLG3042-1	RUBBER LEG (REAR)	
	TBMG799	MODEL NAME PLATE	$\triangle$ AX200U
	TBMG800	MODEL NAME PLATE	$\triangle$ AX200E
	TBMG802	MODEL NO. LABEL	AX200U
	TBMG803	MODEL NO. LABEL	AX200E
9	TBMU825	TERMINAL SHEET	
10	TBXA49801	CONTROL BUTTON	
11	TBXA49902	CONTROL BUTTON 2	
	TEEC0041	SHIFT MECHA UNIT	
12	TEEC0044	POLARIZING PLATR/IN R	
13	TEEC0045	POLARIZING PLATR/IN G	
14	TEEC0046	POLARIZING PLATR/IN B	
15	TEEC0061	SHIFT LEVER ASSY	
16	TEEC5120	TEMP FUSE INSTALL METAL	$\triangle$
17	TEEC5180-1	MASK MECHA 1	
18	TEEC5181-1	MASK MECHA 2	
19	TEEC5182-1	MASK MECHA 3	
	TEEC5212	SHIFT LEVER	
20	TEEC5214	SHIFT LOCK	
21	TEEC5248	LAMP DUCT 1	$\triangle$
22	TEEC5249	LAMP DUCT 2	$\triangle$
23	TEEC5250-1	VENTILATION DUCT 1	$\triangle$
24	TEEC5251	VENTILATION DUCT 2	$\triangle$
25	TEEC5252	VENTILATION LOBAR	
	TEEC5341	SHIFT COVER	
	TESD067-1	SPRING	

Ref. No.	Part No.	Part Name & Description	Remarks
	TEWA833	FILM IMPEDOR	
	TEWA971	SHIELD GASKET 1	
	TEWB132	SHIELD GASKET 2	
26	THEC084N	D-SUB SCREW	
27	TKGP0035	POLARIZING PLATE/OUT G	
	TKGP0036	POLARIZING PLATE/OUT G	
28	TKGP5240	PBS	
29	TKGP5280	POLARIZING PLATE/OUT R	
	TKGP5281	POLARIZING PLATE/OUT R	
30	TKGP5326	POLARIZING PLATE/OUT B	
	TKGP5329	POLARIZING PLATE/OUT B	
31	TKKC5252	LED PLATE	
32	TKKC5253	REMOTE RECEIVER PLATE	
33	TKKC5254	ILLUMINATION SENSOR PLATE	
34	TKKL5372	LENS COVER	
35	TKZF5056	TERMINAL MMETAL	
36	TKZJ5066	VENTILATION FAN METAL	
37	TKZJ5067	LAMP FAN METAL	
38	TKZJ5068	POWER FAN INSTALL METAL	
	TKZX5213	CEILING BOSS METAL	
	TMKG740	SHEET	
	TMKX100	WASHER	
39	TMKY111	DUCT COVER	
40	TMKY372	INSULATION SHEET (K-PCB)	$\triangle$
41	TMKY352	INSULATION SHEET (A-PCB)	
42	TMKY370	POWER INSULATION SHEET	$\triangle$
43	TMKY371	BALLAST INSULATION SHEET	$\triangle$
	TMKY373	POWER INSULATION SHEET 1	
44	TMKY150	INSULATION SHEET 1 (S-PCB)	
45	TMKY151	INSULATION SHEET 2 (S-PCB)	
	TMKY165	MASK COVER	
	TMKY191	SHELTER SHEET	
	TMME244	TIERAP	
47	TMME279	PCB SPACER	$\triangle$
48	TMXE049	BALLAST INSTALL METAL	$\triangle$

Ref. No.	Part No.	Part Name & Description	Remarks
71	TPCC33102	CARTON	AX200U
	TPCC33103	CARTON	AX200E
72	TPDF1741	ACCESSORY CARTON	
73	TPDF1742	CUSHION	
74	TPDF1743	CUSHION	
75	TPDF1771	CUSHION 2	
76	TPEH110-1	SET COVER	
	TQB817002-1	SAFETY SHEET	AX200U
77	TQBJ0235	INSTRUCTION BOOK	△ AX200U
	TQBJ0236	INSTRUCTION BOOK	△ AX200E
	TQBJ7002-2	DIRECTORY SHEET	AX200U
	TQD1712010	SHEET	
	TQDJ18026-4	GUARANTEE CARD (USA)	AX200U
	TQDJ18029	GUARANTEE CARD (CANADA)	AX200U
	TQDJ19066	PREMIUM SERVICES SHEET	AX200U
	TQDJ19072	EMC SHEET	AX200E
	TQFD808	U/V CAUTION LABEL	△
	TSXL586	FLEX CABLE (A8-S1)	△
49	TPPA0485	TERMINAL COVER ASSY	△
	TTRA0140	WIRE ASSY	
50	TUCB5061	POWERBOX INSULATION METAL	
51	TUCB5062	FAN INSULATION METAL	
	TUCB5064	ALUMINUM SHEET 1	
	TUCB5065	ALUMINUM SHEET 2	
	TUCB5066	ALUMINUM SHEET 3	
	TUCB5077	ALUMINUM SHEET 4	
	TUCB5079	ALUMINUM SHEET 6	
	TUCB5084	ALUMINUM SHEET 8	
	TUCB5111	ALUMINUM SHEET	
52	TUCX5181	GROUND METAL 1	
53	TUCX5222-2	BASE METAL	
54	TUCX5223	BOARD EARTH METAL	
	TUCX5228	EARTH METAL (A)	
55	TUWC067	INSTALL METAL (K-PCB)	
56	TUXX406	BALLAST INSTALL METAL	
	TVRP220	HDCP CIPHER KEY	
57	TXAEE03VKD3	LAMP HOUSE ASSY	△
58	TXAEE04VKD3	INHALATION DUCT ASSY	
59	TXFEC98VKF7	ANALYSIS BLOCK	△
60	TXFEC99VKD3A	OPTICAL BLOCK A	△
	TXFEC99VKD3B	OPTICAL BLOCK B	△
61	TXFKF01QNEZ	BOTTOM COVER	△ AX200U
	TXFKF01QNFZ	BOTTOM COVER	△ AX200E
62	TXFKF02QNEZ	UPPER COVER	△ AX200U
	TXFKF02QNFZ	UPPER COVER	△ AX200E
63	TXFKK01VKD3	LAMP COVER ASSY	
64	TXFKN01VKD3	FILTER ASSY	
	TXJ/B1VKD3	LEAD WIRE (B1-P2)	△
	TXJ/E2VKD3	EARTH WIRE	△
	TXJ/E3VKD3	EARTH LEAD	△
	TXJ/E4VKD3	EARTH LEAD	△
	TXJ/H1VKD3	LEAD WIRE (H1-A23)	△
	TXJ/K1VKD3	LEAD WIRE (K1-PK)	△
	TXJ/L2VKD3	LEAD WIRE (B-PCB)	△
	TXJ/M1VKD3	LEAD WIRE (M1-A21)	△
	TXJ/M2VKD3	LEAD WIRE (M2-S2)	△
	TXJ/P1VKD3	LEAD WIRE (PK-P1)	△
	TXJ/P3VKD3	LEAD WIRE (P3-A6)	△
	TXJ/Q3VKD3	LEAD WIRE (Q3-A4)	△
65	TXZEC03VKD3	CINEMA FILTER ASSY	
66	TXZEN01VKF7	IRIS UNIT ASSY	
	TXZEN02VKF7	MOTOR ASSY	△
67	TXZKG03VKF7	LENS	△
68	TZTEN01VKD3	LCD PANEL (B) / NORMAL	L5BDAYY00022 + ADJUST METAL
	TZTEN02VKD3	LCD PANEL (B) / REVERSE	L5BDAYY00025 + ADJUST METAL
	XSB3+12FN	SCREW	
69	XSB3+8FN	SCREW	
	XSN3+8FJK	SCREW	
70	XTB3+10CFN	SCREW	

Ref. No.	Part No.	Part Name & Description	Remarks
	XTBT969FJK	SCREW	
	XTN3+6GFJ	SCREW	
	XTW3+8PFJ	SCREW	
	XYC3+FG10FJK	SCREW	
	XYN2+F6FJ	SCREW	
	XYN2+J4FJ	SCREW	
	XYN3+F12FJ	SCREW	
	XYN3+F8FJ	SCREW	
	XYN3+J12FJ	SCREW	
	XYN3+J8FJ	SCREW	
	XYN4+E8FJ	SCREW	
	XYN4+F32FJ	SCREW	
	XYN4+J12FJ	SCREW	
	XZB15X32C05	POLY BAG	
	XZBT6506	POLY BAG	
[INTEGRATED CIRCUIT]			
IC1001	C1AB00002788	I.C	
IC1004	C1ZBZ0002561	I.C	
IC1005	C1AB00002628	I.C	
IC1006	C3ABQJ000048	I.C	
IC1007	C0ZBZ0001361	I.C	
IC1010	TVRP617	I.C	
IC1011	C0CBCAG00020	I.C	
IC1012	C3BBFC000321	I.C	
IC1013	C0CBCBD00008	I.C	
IC1015	C0DBZYY00275	I.C	
IC1016	C0EBE0000336	I.C	
IC1026	C0DBEKG00004	I.C	
IC1027	C0DBEYY00042	I.C	
IC1028	C0DBEKG00004	I.C	
IC1029	C0DBEKG00004	I.C	
IC1030	C1AB00002806	I.C	
IC1033	C0DBEFH00001	I.C	
IC1053	C1AB00002607	I.C	
IC1054	C1AB00002766	I.C	
IC1055	C1AB00002607	I.C	
IC1056	C1AB00002766	I.C	
IC1057	C1AB00002607	I.C	
IC1058	C1AB00002766	I.C	
IC1060	C0CBCYG00004	I.C	
IC1061	C3EBJC000055	I.C	
IC1063	TVRP618	I.C	
IC1066	C0CBCAG00016	I.C	
IC1102	C0JBAZ002431	I.C	
IC1103	C0ZBZ0001473	I.C	
IC1105	C0CBCDD00004	I.C	
IC1106	C3EBEC000054	I.C	
IC1107	C0BG0000053	I.C	
IC1111	C0DBZGF00002	I.C	
IC1115	C0ABCA000085	I.C	
IC1116	C0EBE0000336	I.C	
IC1117	C1BB00000888	I.C	
IC1122	C0CBCAD00015	I.C	
IC1123	C0CBCAD00015	I.C	
IC1124	C0CBCAD00015	I.C	
IC1125	C0CBCDD00004	I.C	
IC1133	TVRP619	I.C	
IC1137	C0JBAA000359	I.C	
IC1138	C0JBAA000359	I.C	
IC9602	C0ZBZ0001462	I.C (B-PCB)	
IC9603	C0ZBZ0001462	I.C (B-PCB)	
[TRANSISTORS]			
Q1001	2SD1819A0L	TRANSISTOR	
Q1003	2SB1218A0L	TRANSISTOR	
Q1006	2SD1819A0L	TRANSISTOR	
Q1008	2SD1819A0L	TRANSISTOR	
Q1009	2SD1819A0L	TRANSISTOR	
Q1011	2SD1819A0L	TRANSISTOR	
Q1012	2SD1819A0L	TRANSISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
Q1013	B1GBCFJJ0007	TRANSISTOR	
Q1014	B1GBCFJJ0007	TRANSISTOR	
Q1015	2SD1819A0L	TRANSISTOR	
Q1020	B1GBCFJJ0007	TRANSISTOR	
Q1021	B1GBCFJJ0007	TRANSISTOR	
Q1031	B1ABCF000020	TRANSISTOR	
Q1032	B1ABCF000020	TRANSISTOR	
Q1033	B1ABCF000020	TRANSISTOR	
Q1034	B1ABCF000020	TRANSISTOR	
Q1035	2SD1819A0L	TRANSISTOR	
Q1038	B1CBGD000001	TRANSISTOR	
Q1048	B1CBGD000001	TRANSISTOR	
Q1111	B1ABCF000020	TRANSISTOR	
Q1112	B1GBCFJJ0007	TRANSISTOR	
Q1117	B1GBCFJJ0007	TRANSISTOR	
Q1120	B1ADCF000063	TRANSISTOR	
Q1121	B1ABCF000020	TRANSISTOR	
Q2001	B1GDCFJJ0008	TRANSISTOR	
Q2021	B1GBCFJJ0007	TRANSISTOR	
Q2022	B1GBCFJJ0007	TRANSISTOR	
Q2023	B1GDCFJJ0008	TRANSISTOR	
Q2024	B1GDCFJJ0008	TRANSISTOR	
Q9603	B1DEGQ000037	TRANSISTOR	
Q9604	2SB0710AWL	TRANSISTOR (B-PCB)	
Q9605	2SB0710AWL	TRANSISTOR (B-PCB)	
Q9606	B1DEGM000022	TRANSISTOR	
Q9607	B1DEGM000022	TRANSISTOR	
Q9608	2SB0710AWL	TRANSISTOR (B-PCB)	
Q9609	2SB0710AWL	TRANSISTOR (B-PCB)	
Q9611	B1DEGM000022	TRANSISTOR	
Q9614	B1DEGQ000037	TRANSISTOR	
		[DIODES]	
D1010	MA8056M	DIODE	
D1011	MA8056M	DIODE	
D1024	B3AAB0000038	DIODE	
D1105	EZJZ0V171AA	VARISTOR	
D1110	EZJZ0V171AA	VARISTOR	
D1122	MA152WK	DIODE	
D1123	MA152WK	DIODE	
D1124	MA3X15300L	DIODE	
D1125	MA704A	DIODE	
D1126	B0JCPD000026	DIODE	
D1127	B0JCPD000026	DIODE	
D1139	EZAEG2A50AX	DIODE	
D1141	EZAEG2A50AX	DIODE	
D1142	EZAEG2A50AX	DIODE	
D1143	EZAEG2A50AX	DIODE	
D1145	EZAEG2A50AX	DIODE	
D1146	EZAEG2A50AX	DIODE	
D1147	EZAEG2A50AX	DIODE	
D1148	EZAEG2A50AX	DIODE	
D2021	B3AAB0000038	DIODE	
D2022	B3AAB0000038	DIODE	
D2023	B3AGB0000044	DIODE	
D9101	D4EAY4710001	DIODE	△
D9601	B0FABR000008	DIODE (B-PCB)	
D9604	MA158TX	DIODE (B-PCB)	
D9605	B0JCPF000001	DIODE (B-PCB)	
D9606	MA158TX	DIODE (B-PCB)	
D9607	B0JCPF000001	DIODE (B-PCB)	
D9608	MA158TX	DIODE (B-PCB)	
D9609	B0JCPF000001	DIODE (B-PCB)	
D9610	TYPQ9610VKD3	TRANSISTOR (B-PCB)	
D9611	MA158TX	DIODE (B-PCB)	
D9612	B0JCPF000001	DIODE (B-PCB)	
D9616	B0ECHP000003	DIODE (B-PCB)	
D9617	B0JCPF000001	DIODE (B-PCB)	
D9618	B0JCPF000001	DIODE (B-PCB)	
D9619	B0JCPF000001	DIODE (B-PCB)	
D9620	B0JCPF000001	DIODE (B-PCB)	
D9621	B0JCPF000001	DIODE (B-PCB)	

Ref. No.	Part No.	Part Name & Description	Remarks
D9622	B0ECHP000003	DIODE (B-PCB)	
D9623	B0ECHP000003	DIODE (B-PCB)	
D9624	B0JCPF000001	DIODE (B-PCB)	
D9625	B0JCPF000001	DIODE (B-PCB)	
D9626	B0JCPF000001	DIODE (B-PCB)	
D9627	B0JCPF000001	DIODE (B-PCB)	
D9628	B0JCPF000001	DIODE (B-PCB)	
D9629	B0ECHP000003	DIODE (B-PCB)	
		[COILS]	
L1002	J0JCC0000168	FILTER	
L1005	J0JCC0000168	FILTER	
L1012	J0JCC0000168	FILTER	
L1013	J0JCC0000168	FILTER	
L1014	J0JCC0000168	FILTER	
L1015	J0JCC0000168	FILTER	
L1016	J0JCC0000022	EMI FILTER	
L1017	J0JCC0000168	FILTER	
L1018	J0JCC0000168	FILTER	
L1019	J0JCC0000168	FILTER	
L1020	J0JCC0000168	FILTER	
L1021	J0JCC0000022	EMI FILTER	
L1022	J0JHC0000078	EMI FILTER	
L1023	J0JHC0000078	EMI FILTER	
L1025	J0JCC0000168	FILTER	
L1027	J0JHC0000078	EMI FILTER	
L1028	J0JHC0000078	EMI FILTER	
L1030	J0JCC0000022	EMI FILTER	
L1033	J0JCC0000168	FILTER	
L1034	J0JCC0000022	EMI FILTER	
L1035	ELJFA470JFB	COIL	
L1036	J0JCC0000168	FILTER	
L1037	J0JCC0000168	FILTER	
L1038	J0JCC0000168	FILTER	
L1043	J0JCC0000168	FILTER	
L1049	J0JCC0000022	EMI FILTER	
L1050	J0JCC0000022	EMI FILTER	
L1051	J0JCC0000022	EMI FILTER	
L1064	J0JCC0000022	EMI FILTER	
L1065	J0JCC0000168	FILTER	
L1070	J0JCC0000022	EMI FILTER	
L1071	J0JCC0000022	EMI FILTER	
L1072	J0JCC0000022	EMI FILTER	
L1076	ELJFA470JFB	COIL	
L1077	J0JCC0000022	EMI FILTER	
L1078	G1CR10K00010	COIL	
L1086	J0JCC0000168	FILTER	
L1087	J0JCC0000168	FILTER	
L1103	J0JCC0000168	FILTER	
L1104	J0JCC0000022	EMI FILTER	
L1105	J0JCC0000022	EMI FILTER	
L1106	J0JCC0000022	EMI FILTER	
L1117	J0JCC0000022	EMI FILTER	
L1118	J0JHC0000078	EMI FILTER	
L1119	J0JHC0000078	EMI FILTER	
L1120	J0JHC0000078	EMI FILTER	
L1121	J0JHC0000078	EMI FILTER	
L1122	J0JHC0000078	EMI FILTER	
L1124	J0JCC0000168	FILTER	
L1126	G1C330MA0218	COIL	
L1127	G1C330MA0218	COIL	
L1129	J0JCC0000022	EMI FILTER	
L1130	J0JCC0000022	EMI FILTER	
L1131	J0JCC0000022	EMI FILTER	
L1137	J0JCC0000022	EMI FILTER	
L1138	J0JCC0000022	EMI FILTER	
L1139	J0JCC0000022	EMI FILTER	
L1140	J0JCC0000022	EMI FILTER	
L1141	J0JCC0000022	EMI FILTER	
L1142	J0JGC0000059	FILTER	
L1143	J0JGC0000059	FILTER	
L1144	J0JGC0000059	FILTER	

Ref. No.	Part No.	Part Name & Description	Remarks
L1145	J0JGC0000059	FILTER	
L1145	J0JJC0000022	EMI FILTER	
L1146	J0JGC0000059	FILTER	
L1147	J0JGC0000059	FILTER	
L2001	J0JCC0000168	FILTER	
LF9101	G0B692J00001	CHOKE COIL	△
LF9102	G0B692J00001	CHOKE COIL	△
FL1001	J0HAYY000046	EMI FILTER	
FL1002	J0HAYY000046	EMI FILTER	
FL1003	J0HABC000011	FILTER	
FL1004	J0HAYY000012	FILTER	
FL1005	J0HAYY000012	FILTER	
FL1006	J0HAYY000012	FILTER	
FL1007	J0HAYY000012	FILTER	
FL1008	J0HAYY000012	FILTER	
FL1009	J0HAYY000012	FILTER	
FL1010	J0HAYY000012	FILTER	
FL1011	J0HAYY000012	FILTER	
FL1012	J0HAYY000012	FILTER	
FL1013	J0HAYY000012	FILTER	
FL1014	J0HAYY000012	FILTER	
FL1015	J0HAYY000012	FILTER	
FL1016	J0HAYY000012	FILTER	
FL1017	J0HAYY000012	FILTER	
FL1018	J0HABC000011	FILTER	
FL1019	J0HABC000011	FILTER	
FL1020	J0HAYY000012	FILTER	
FL1021	J0HAYY000012	FILTER	
FL1022	J0HAYY000012	FILTER	
FL1023	J0HAYY000012	FILTER	
FL1024	J0HAYY000012	FILTER	
FL1025	J0HAYY000012	FILTER	
FL1026	J0HAYY000012	FILTER	
FL1028	J0HAYY000012	FILTER	
		[RESISTORS]	
R1001	ERJ2GEJ220	M 22 OHM, 0.063W	
R1002	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1003	ERJ2GEJ121	RESISTOR	
R1005	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1006	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1007	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R1008	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1009	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R1010	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R1011	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R1012	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R1013	ERJ3GEYJ331	M 330 OHM, J, 1/16W	
R1014	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R1015	ERJ3GEYJ221	M 220 OHM, J, 1/16W	
R1016	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1017	ERJ6GEYJ750	M 75 OHM, J, 1/10W	
R1018	ERJ3GEYJ101	M 100 OHM, J, 1/16W	
R1019	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1020	ERJ3GEYJ471	M 470 OHM, J, 1/16W	
R1021	ERJ3GEYJ101	M 100 OHM, J, 1/16W	
R1022	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R1023	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R1025	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1026	ERJ6GEYJ750	M 75 OHM, J, 1/10W	
R1027	ERJ3GEYJ221	M 220 OHM, J, 1/16W	
R1029	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1030	ERJ3GEYJ471	M 470 OHM, J, 1/16W	
R1031	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R1032	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R1033	ERJ3GEYJ221	M 220 OHM, J, 1/16W	
R1034	ERJ3GEYJ471	M 470 OHM, J, 1/16W	
R1035	ERJ2GEJ103	M 10K OHM, 0.063W	
R1036	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1038	ERJ2GEJ103	M 10K OHM, 0.063W	
R1039	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R1040	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1041	ERJ3GEYJ331	M 330 OHM, J, 1/16W	
R1042	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1043	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1045	ERJ6ENF75R0	M 75 OHM, 1/10W	
R1046	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1049	ERJ2GEJ682	RESISTOR	
R1050	ERJ2GEJ103	M 10K OHM, 0.063W	
R1051	ERJ2GEJ332	M 3.3KOHM, 0.063W	
R1053	ERJ2GEJ473	M 47K OHM, 0.063W	
R1055	ERJ3GEYJ471	M 470 OHM, J, 1/16W	
R1058	ERJ2GEJ180	M 18 OHM, 0.063W	
R1059	ERJ2GEJ180	M 18 OHM, 0.063W	
R1061	ERJ2GEJ101	M 100 OHM, 0.063W	
R1062	ERJ2GEJ331	M 330 OHM, 0.063W	
R1063	ERJ3EKF4990	RESISTOR	
R1065	ERJ2GEJ331	M 330 OHM, 0.063W	
R1066	EXB28V560J	RESISTOR ARRAY	
R1067	EXB28V560J	RESISTOR ARRAY	
R1068	EXB28V560J	RESISTOR ARRAY	
R1069	EXB28V560J	RESISTOR ARRAY	
R1070	EXB28V560J	RESISTOR ARRAY	
R1071	ERJ2GEJ180	M 18 OHM, 0.063W	
R1072	ERJ3EKF1600	RESISTOR	
R1073	EXB28V560J	RESISTOR ARRAY	
R1074	EXB28V560J	RESISTOR ARRAY	
R1075	EXB28V560J	RESISTOR ARRAY	
R1076	EXB28V560J	RESISTOR ARRAY	
R1077	EXB28V560J	RESISTOR ARRAY	
R1078	EXB28V560J	RESISTOR ARRAY	
R1079	EXB28V560J	RESISTOR ARRAY	
R1080	EXB28V560J	RESISTOR ARRAY	
R1081	EXB28V560J	RESISTOR ARRAY	
R1082	EXB28V560J	RESISTOR ARRAY	
R1083	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1084	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1085	ERJ3GEY0R00	M 0 OHM, 1/16W	
R1086	ERJ3GEYJ101	M 100 OHM, J, 1/16W	
R1087	ERJ3GEYJ180	METAL OXIDE RESISTOR	
R1088	ERJ3GEYJ180	METAL OXIDE RESISTOR	
R1089	ERJ3GEYJ180	METAL OXIDE RESISTOR	
R1090	ERJ2GEJ101	M 100 OHM, 0.063W	
R1091	ERJ2GEJ220	M 22 OHM, 0.063W	
R1092	ERJ2GEJ220	M 22 OHM, 0.063W	
R1093	ERJ2GEJ220	M 22 OHM, 0.063W	
R1094	ERJ2GEJ220	M 22 OHM, 0.063W	
R1095	ERJ3GEYJ101	M 100 OHM, J, 1/16W	
R1096	ERJ2GEJ220	M 22 OHM, 0.063W	
R1097	ERJ2GEJ220	M 22 OHM, 0.063W	
R1098	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1099	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1100	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1101	ERJ2GEJ220	M 22 OHM, 0.063W	
R1102	ERJ3EKF1371	M 1.37KOHM, 0.063W	
R1103	ERJ6GEYJ750	M 75 OHM, J, 1/10W	
R1104	ERJ2GEJ220	M 22 OHM, 0.063W	
R1105	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1106	ERJ3GEYJ471	M 470 OHM, J, 1/16W	
R1107	ERJ3GEYJ471	M 470 OHM, J, 1/16W	
R1108	ERJ2GEJ3R0	RESISTOR	
R1109	ERJ2GEJ3R0	RESISTOR	
R1110	ERJ2GEJ220	M 22 OHM, 0.063W	
R1111	ERJ3EKF1691	M 1.69KOHM, 1/16W	
R1112	ERJ2GEJ220	M 22 OHM, 0.063W	
R1113	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1114	ERJ2GEJ220	M 22 OHM, 0.063W	
R1115	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1116	EXB28V220J	RESISTOR ARRAY	
R1117	ERJ2GEJ220	M 22 OHM, 0.063W	
R1118	ERJ3EKF1501	M 1.5KOHM, 1/16W	
R1119	ERJ2GEJ220	M 22 OHM, 0.063W	
R1120	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1121	ERJ2GEJ560	M 56 OHM, 0.063W	
R1122	ERJ3GEYJ333	M 33K OHM, J, 1/16W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1124	ERJ2GE0R00	M 0 OHM, 0.063W	
R1125	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1126	ERJ2GEJ220	M 22 OHM, 0.063W	
R1127	ERJ2GE0R00	M 0 OHM, 0.063W	
R1127	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1128	ERJ2GE0R00	M 0 OHM, 0.063W	
R1129	ERJ2GEJ220	M 22 OHM, 0.063W	
R1130	ERJ2GEJ220	M 22 OHM, 0.063W	
R1131	ERJ2GEJ3R0	RESISTOR	
R1132	ERJ2GEJ3R0	RESISTOR	
R1134	ERJ2GEJ220	M 22 OHM, 0.063W	
R1135	ERJ2GEJ220	M 22 OHM, 0.063W	
R1136	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1137	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1138	EXB28V220J	RESISTOR ARRAY	
R1139	EXB28V220J	RESISTOR ARRAY	
R1140	EXB28V220J	RESISTOR ARRAY	
R1141	EXB28V220J	RESISTOR ARRAY	
R1142	ERJ2GEJ103	M 10K OHM, 0.063W	
R1143	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1144	ERJ2GEJ221	M 220 OHM, 0.063W	
R1145	EXB28V220J	RESISTOR ARRAY	
R1146	ERJ2GEJ3R0	RESISTOR	
R1147	ERJ2GEJ3R0	RESISTOR	
R1148	ERJ2GEJ3R0	RESISTOR	
R1149	ERJ2GEJ103	M 10K OHM, 0.063W	
R1150	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1152	ERJ2GEJ103	M 10K OHM, 0.063W	
R1154	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1156	ERJ3GEYJ560	M 56 OHM, J, 1/16W	
R1157	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1158	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1159	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1160	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1161	ERJ3GEYJ333	M 33K OHM, J, 1/16W	
R1163	ERJ2GE0R00	M 0 OHM, 0.063W	
R1164	ERJ3GEYJ333	M 33K OHM, J, 1/16W	
R1165	ERJ2GEJ3R0	RESISTOR	
R1166	ERJ2GEJ3R0	RESISTOR	
R1168	EXB28V220J	RESISTOR ARRAY	
R1169	ERJ2GE0R00	M 0 OHM, 0.063W	
R1170	ERJ2GEJ220	M 22 OHM, 0.063W	
R1171	ERJ2GEJ220	M 22 OHM, 0.063W	
R1172	ERJ2GEJ220	M 22 OHM, 0.063W	
R1173	ERJ2GEJ220	M 22 OHM, 0.063W	
R1174	ERJ2GEJ220	M 22 OHM, 0.063W	
R1175	ERJ2GEJ220	M 22 OHM, 0.063W	
R1176	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1177	ERJ2GEJ103	M 10K OHM, 0.063W	
R1178	ERJ2GEJ103	M 10K OHM, 0.063W	
R1179	ERJ2GEJ223	RESISTOR	
R1180	ERJ2GEJ223	RESISTOR	
R1181	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1182	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1183	ERJ2GEJ3R0	RESISTOR	
R1184	ERJ3EKF2201	RESISTOR	
R1185	ERJ2GEJ103	M 10K OHM, 0.063W	
R1188	ERJ2GE0R00	M 0 OHM, 0.063W	
R1189	ERJ3EKF1072	RESISTOR	
R1190	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1191	ERJ2GEJ3R0	RESISTOR	
R1192	ERJ2GE0R00	M 0 OHM, 0.063W	
R1193	ERJ2GEJ121	RESISTOR	
R1194	ERJ2GEJ121	RESISTOR	
R1195	ERJ2GEJ3R0	RESISTOR	
R1196	ERJ2GEJ103	M 10K OHM, 0.063W	
R1197	ERJ2GEJ3R0	RESISTOR	
R1198	ERJ2GEJ220	M 22 OHM, 0.063W	
R1199	ERJ2GEJ560	M 56 OHM, 0.063W	
R1200	ERJ2GEJ560	M 56 OHM, 0.063W	
R1202	ERJ2GEJ223	RESISTOR	
R1206	ERJ2GEJ104	M 100KOHM, 0.063W	
R1207	ERJ2GEJ562	M 5.6KOHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1208	EXB28V560J	RESISTOR ARRAY	
R1209	EXB28V560J	RESISTOR ARRAY	
R1210	EXB28V560J	RESISTOR ARRAY	
R1211	EXB28V560J	RESISTOR ARRAY	
R1212	EXB28V560J	RESISTOR ARRAY	
R1213	EXB28V560J	RESISTOR ARRAY	
R1214	EXB28V560J	RESISTOR ARRAY	
R1215	EXB28V560J	RESISTOR ARRAY	
R1216	EXB28V560J	RESISTOR ARRAY	
R1217	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1218	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1219	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1223	ERJ2GEJ560	M 56 OHM, 0.063W	
R1227	ERJ3GEYJ100	M 10 OHM, J, 1/16W	
R1228	ERJ3GEYJ100	M 10 OHM, J, 1/16W	
R1229	ERJ3GEYJ100	M 10 OHM, J, 1/16W	
R1233	ERJ2GEJ220	M 22 OHM, 0.063W	
R1236	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1239	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1240	EXB28V560J	RESISTOR ARRAY	
R1241	EXB28V560J	RESISTOR ARRAY	
R1242	EXB28V560J	RESISTOR ARRAY	
R1243	EXB28V560J	RESISTOR ARRAY	
R1244	EXB28V560J	RESISTOR ARRAY	
R1245	EXB28V560J	RESISTOR ARRAY	
R1246	EXB28V560J	RESISTOR ARRAY	
R1247	EXB28V560J	RESISTOR ARRAY	
R1257	ERJ2GEJ560	M 56 OHM, 0.063W	
R1258	ERJ2GEJ101	M 100 OHM, 0.063W	
R1259	ERJ2GEJ101	M 100 OHM, 0.063W	
R1260	ERJ2GEJ101	M 100 OHM, 0.063W	
R1265	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1268	ERJ2GEJ220	M 22 OHM, 0.063W	
R1275	ERJ2GEJ103	M 10K OHM, 0.063W	
R1278	ERJ2GEJ220	M 22 OHM, 0.063W	
R1279	EXB28V560J	RESISTOR ARRAY	
R1281	EXB28V560J	RESISTOR ARRAY	
R1282	EXB28V560J	RESISTOR ARRAY	
R1283	EXB28V560J	RESISTOR ARRAY	
R1284	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1285	ERJ2GEJ3R0	RESISTOR	
R1286	ERJ2GEJ3R0	RESISTOR	
R1287	ERJ2GEJ3R0	RESISTOR	
R1288	ERJ2GEJ3R0	RESISTOR	
R1289	ERJ2GEJ3R0	RESISTOR	
R1290	ERJ2GEJ3R0	RESISTOR	
R1291	ERJ2GEJ3R0	RESISTOR	
R1292	ERJ2GEJ3R0	RESISTOR	
R1293	ERJ2GEJ3R0	RESISTOR	
R1294	ERJ2GEJ103	M 10K OHM, 0.063W	
R1297	ERJ3GEYJ331	M 330 OHM, J, 1/16W	
R1298	EXB28V220J	RESISTOR ARRAY	
R1301	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1302	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1303	ERJ3GEYJ101	M 100 OHM, J, 1/16W	
R1304	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1305	ERJ3GEYJ105	M 1M OHM, J, 1/16W	
R1306	EXB28V220J	RESISTOR ARRAY	
R1307	ERJ3EKF1002	M 10KOHM, 1/16W	
R1308	ERJ3EKF1002	M 10KOHM, 1/16W	
R1309	ERJ3EKF1691	M1.69KOHM, 1/16W	
R1310	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1314	ERJ3GEYJ221	M 220 OHM, J, 1/16W	
R1315	EXB28V102J	RESISTOR ARRAY	
R1317	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1318	ERJ2GEJ220	M 22 OHM, 0.063W	
R1326	ERJ3GEYJ562	M 5.6KOHM, J, 1/16W	
R1334	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1347	ERJ2GEJ103	M 10K OHM, 0.063W	
R1348	ERJ2GEJ101	M 100 OHM, 0.063W	
R1353	EXB28V560J	RESISTOR ARRAY	
R1354	EXB28V560J	RESISTOR ARRAY	
R1355	ERJ2GEJ103	M 10K OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1363	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1364	ERJ2GEJ103	M 10K OHM, 0.063W	
R1365	ERJ6GEYJ100	M 10 OHM, J, 1/10W	
R1367	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1370	ERJ6GEYJ100	M 10 OHM, J, 1/10W	
R1371	ERJ2GEJ103	M 10K OHM, 0.063W	
R1372	ERJ2GEJ562	M 5.6KOHM, 0.063W	
R1373	ERJ6GEYJ100	M 10 OHM, J, 1/10W	
R1374	EXB28V560J	RESISTOR ARRAY	
R1375	ERJ6GEYJ560	M 56 OHM, J, 1/10W	
R1381	ERJ3EKF5101	RESISTOR	
R1382	EXB28V560J	RESISTOR ARRAY	
R1383	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1384	EXB28V560J	RESISTOR ARRAY	
R1389	ERJ2GEJ333	M 33K OHM, 0.063W	
R1402	ERJ2GEJ101	M 100 OHM, 0.063W	
R1414	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1415	ERJ3EKF5101V	RESISTOR	
R1419	ERJ3GEYJ152	M 1.5KOHM, J, 1/16W	
R1444	ERJ2GEJ103	M 10K OHM, 0.063W	
R1472	ERJ2GEJ220	M 22 OHM, 0.063W	
R1505	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1506	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1507	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1512	ERJ3GEYJ104	M 100KOHM, J, 1/16W	
R1513	ERJ3GEYJ273	M 27KOHM, J, 1/16W	
R1516	EXB28V390J	RESISTOR ARRAY	
R1517	EXB28V390J	RESISTOR ARRAY	
R1518	EXB28V390J	RESISTOR ARRAY	
R1519	ERJ3GEYJ151	M 150 OHM, J, 1/16W	
R1520	EXB28V390J	RESISTOR ARRAY	
R1521	EXB28V390J	RESISTOR ARRAY	
R1522	EXB28V390J	RESISTOR ARRAY	
R1523	EXB28V390J	RESISTOR ARRAY	
R1524	EXB28V390J	RESISTOR ARRAY	
R1525	EXB28V390J	RESISTOR ARRAY	
R1526	EXB28V390J	RESISTOR ARRAY	
R1527	EXB28V390J	RESISTOR ARRAY	
R1528	EXB28V390J	RESISTOR ARRAY	
R1530	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1531	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1532	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1533	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1534	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1535	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1536	ERJ2GEJ103	M 10K OHM, 0.063W	
R1537	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1538	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1539	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1540	ERJ3GEYJ390	METAL OXIDE RESISTOR	
R1542	ERJ3GEYJ470	M 47 OHM, J, 1/16W	
R1543	ERJ3GEYJ470	M 47 OHM, J, 1/16W	
R1550	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1551	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1563	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1564	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1567	ERJ2GEJ101	M 100 OHM, 0.063W	
R1568	ERJ2GEJ101	M 100 OHM, 0.063W	
R1569	ERJ2GEJ101	M 100 OHM, 0.063W	
R1570	ERJ2GEJ331	M 330 OHM, 0.063W	
R1571	EXB28V472J	RESISTOR ARRAY	
R1572	ERJ2GEJ101	M 100 OHM, 0.063W	
R1573	ERJ2GEJ101	M 100 OHM, 0.063W	
R1574	ERJ2GEJ101	M 100 OHM, 0.063W	
R1575	ERJ3GEYJ222	M 2.2KOHM, J, 1/16W	
R1576	ERJ3GEYJ222	M 2.2KOHM, J, 1/16W	
R1577	ERJ2GEJ472	M 4.7KOHM, 0.063W	
R1579	ERJ3GEYJ222	M 2.2KOHM, J, 1/16W	
R1580	ERJ3GEYJ222	M 2.2KOHM, J, 1/16W	
R1581	ERJ2GEJ101	M 100 OHM, 0.063W	
R1582	ERJ2GEJ560	M 56 OHM, 0.063W	
R1584	ERJ2GEJ560	M 56 OHM, 0.063W	
R1592	ERJ2GEJ103	M 10K OHM, 0.063W	

Ref. No.	Part No.	Part Name & Description	Remarks
R1600	ERJ3GEYJ470	M 47 OHM, J, 1/16W	
R1604	EXB38V680J	RESISTOR ARRAY	
R1606	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1608	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1610	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1611	ERJ3GEYJ123	M 12K OHM, J, 1/16W	
R1612	EXB38V680J	RESISTOR ARRAY	
R1614	EXB38V680J	RESISTOR ARRAY	
R1616	EXB38V680J	RESISTOR ARRAY	
R1617	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1618	EXB38V680J	RESISTOR ARRAY	
R1619	EXB28V390J	RESISTOR ARRAY	
R1620	EXB38V680J	RESISTOR ARRAY	
R1622	EXB38V680J	RESISTOR ARRAY	
R1624	ERJ3EKF5903	M 590KOHM, 1/16W	
R1626	EXB38V680J	RESISTOR ARRAY	
R1628	EXB38V680J	RESISTOR ARRAY	
R1629	ERJ3GEYJ222	M 2.2KOHM, J, 1/16W	
R1630	EXB38V680J	RESISTOR ARRAY	
R1632	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1633	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1634	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1635	ERJ3GEYJ103	M 10K OHM, J, 1/16W	
R1636	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1637	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1638	ERJ3GEYJ473	M 47K OHM, J, 1/16W	
R1639	ERJ3GEYJ471	M 470 OHM, J, 1/16W	
R1640	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1641	ERJ3EKF5621	M5.62KOHM, 1/16W	
R1642	ERJ3EKF5621	M5.62KOHM, 1/16W	
R1643	ERJ3EKF1101	M 1.1KOHM, 1/16W	
R1644	ERJ3EKF1101	M 1.1KOHM, 1/16W	
R1645	ERJ3EKF1101	M 1.1KOHM, 1/16W	
R1646	ERJ3GEYJ124	M 120KOHM, J, 1/16W	
R1650	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1652	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1653	ERJ3GEYJ472	M 4.7KOHM, J, 1/16W	
R1654	ERJ3EKF3923	M 392KOHM, 1/16W	
R1655	ERJ3EKF3923	M 392KOHM, 1/16W	
R1656	ERJ3EKF1803	M 180KOHM, 0.063W	
R1657	ERJ3GEYJ471	M 470 OHM, J, 1/16W	
R1658	ERJ3GEYJ105	M 1M OHM, J, 1/16W	
R1661	ERJ2GEJ103	M 10K OHM, 0.063W	
R1662	ERJ2GEJ103	M 10K OHM, 0.063W	
R1667	ERJ3GEYJ510	M 51 OHM, J, 1/16W	
R1668	ERJ3GEYJ510	M 51 OHM, J, 1/16W	
R1671	ERJ3GEYJ391	M 390 OHM, J, 1/16W	
R1673	ERJ3GEYJ561	M 560 OHM, J, 1/16W	
R1681	ERJ2GE0R00	M 0 OHM, 0.063W	
R1706	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R1720	ERJ2GEJ103	M 10K OHM, 0.063W	
R1721	EXB38V680J	RESISTOR ARRAY	
R1722	EXB38V680J	RESISTOR ARRAY	
R1723	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1724	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1725	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1726	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1727	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1728	ERJ3GEYJ680	M 68 OHM, J, 1/16W	
R1729	ERJ2GEJ220	M 22 OHM, 0.063W	
R1730	ERJ2GEJ102	M 1K OHM, 0.063W	
R1731	ERJ2GEJ102	M 1K OHM, 0.063W	
R1732	ERJ2GEJ102	M 1K OHM, 0.063W	
R1733	ERJ2GEJ102	M 1K OHM, 0.063W	
R2001	ERJ3EKF5601	M 5.6KOHM, 1/16W	
R2002	ERJ3EKF1871V	RESISTOR	
R2003	ERJ3EKF3741	RESISTOR	
R2004	ERJ3GEYJ102	M 1K OHM, J, 1/16W	
R2005	ERJ3EKF1132	RESISTOR	
R2006	ERJ3EKF5601	M 5.6KOHM, 1/16W	
R2007	ERJ3EKF1871V	RESISTOR	
R2008	ERJ3EKF3741	RESISTOR	
R2009	ERJ3EKF1132	RESISTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
R2010	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R2011	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	
R2012	ERJ3GEY0R00	M 0 OHM, 1/16W	
R2013	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R2014	EXB28VR000	RESISTOR ARRAY	
R2021	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R2022	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R2023	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R2024	ERJ3GEYJ101	M 100 OHM,J,1/16W	
R2025	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2026	ERJ3GEYJ331	M 330 OHM,J,1/16W	
R2027	ERJ3GEYJ151	M 150 OHM,J,1/16W	
R2028	ERJ3GEYJ182	M 1.8KOHM,J,1/16W	
R2029	ERJ3GEYJ102	M 1K OHM,J,1/16W	
R2030	ERJ3GEYJ470	M 47 OHM,J,1/16W	
R2201	EXB38V220J	RESISTOR ARRAY	
R9101	D0AE565JA179	RESISTOR	△
R9601	ERX2SJR47E	M 0.47OHM,J, 2W	
R9630	ERJ14YJ3R3U	M 3.3 OHM,J, 1/4W	
R9631	ERJ8GEYJ220	M 68 OHM, J,1/4W	
R9632	ERJ14YJ5R6U	M 5.6 OHM,J, 1/4W	
R9633	ERJ8GEYJ100	M 10 OHM, J,1/4W	
R9634	ERJ8GEYJ120	RESISTOR	
R9636	ERJ14YJ3R3U	M 3.3 OHM,J, 1/4W	
R9637	ERJ8GEYJ220	M 68 OHM, J,1/4W	
R9638	ERJ14YJ5R6U	M 5.6 OHM,J, 1/4W	
R9639	ERJ8GEYJ100	M 10 OHM, J,1/4W	
R9640	ERJ8GEYJ120	RESISTOR	
R9653	D0XGR22J0004	RESISTOR (B-PCB)	
[CAPACITORS]			
C1001	F2G0J3300014	CAPACITOR	
C1002	F2G1A101A029	CAPACITOR	
C1003	ECJ0EB1C103K	C 0.01UF, 16V	
C1004	F2G0J3300014	CAPACITOR	
C1005	ECJ0EB1C103K	C 0.01UF, 16V	
C1006	F2G0J3300014	CAPACITOR	
C1007	F1G1C104A077	CAPACITOR	
C1008	ECJ0EB1C103K	C 0.01UF, 16V	
C1009	F2G0J3300014	CAPACITOR	
C1010	F1G1C1030008	CAPACITOR	
C1011	ECJ0EB1C103K	C 0.01UF, 16V	
C1012	ECJ0EB1H102K	C 1000PF, 50V	
C1013	ECJ0EB1H102K	C 1000PF, 50V	
C1014	F2G0J3300014	CAPACITOR	
C1015	F1G1C104A077	CAPACITOR	
C1016	F1G1C104A077	CAPACITOR	
C1017	F1G1C104A077	CAPACITOR	
C1018	F1G1C104A077	CAPACITOR	
C1019	F1G1C104A077	CAPACITOR	
C1020	F1G1C104A077	CAPACITOR	
C1021	F1G1C104A077	CAPACITOR	
C1022	ECJ1VF1A225Z	CAPACITOR	
C1023	ECJ1VF1A225Z	CAPACITOR	
C1024	F1G1C104A077	CAPACITOR	
C1025	ECJ1VC1H330J	CAPACITOR	
C1026	ECJ1VC1H330J	CAPACITOR	
C1027	F1G1C104A077	CAPACITOR	
C1028	F1G1C104A077	CAPACITOR	
C1029	F1G1C104A077	CAPACITOR	
C1030	F1G1C104A077	CAPACITOR	
C1031	F1G1C104A077	CAPACITOR	
C1032	F1G1C104A077	CAPACITOR	
C1033	ECJ1VB1C393K	CAPACITOR	
C1034	ECJ2FF1A106Z	C 10UF, 10V	
C1035	F1G1C104A077	CAPACITOR	
C1036	F1G1C104A077	CAPACITOR	
C1037	F1G1C1030008	CAPACITOR	
C1038	F1G1C1030008	CAPACITOR	
C1039	F1G1C104A077	CAPACITOR	
C1040	F1G1C104A077	CAPACITOR	
C1041	F1G1C104A077	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1042	F1G1C104A077	CAPACITOR	
C1043	F1G1C104A077	CAPACITOR	
C1044	ECJ1VB0J824K	CAPACITOR	
C1045	F1G1C104A077	CAPACITOR	
C1046	F1G1C104A077	CAPACITOR	
C1047	F1G1C104A077	CAPACITOR	
C1048	F1G1C104A077	CAPACITOR	
C1049	F1G1C104A077	CAPACITOR	
C1050	F1G1C104A077	CAPACITOR	
C1051	F1G1C104A077	CAPACITOR	
C1052	F1G1C104A077	CAPACITOR	
C1053	F1G1C104A077	CAPACITOR	
C1054	F1G1C104A077	CAPACITOR	
C1055	F1G1C104A077	CAPACITOR	
C1056	F1G1C104A077	CAPACITOR	
C1057	F1G1C104A077	CAPACITOR	
C1058	ECJ2FF1A106Z	C 10UF, 10V	
C1059	ECJ2FF1A106Z	C 10UF, 10V	
C1061	F1G1C104A077	CAPACITOR	
C1062	ECJ2FF1A106Z	C 10UF, 10V	
C1063	F1G1H1020008	CAPACITOR	
C1064	ECJ2FF1A106Z	C 10UF, 10V	
C1065	F1G1C104A077	CAPACITOR	
C1066	F1G1C104A077	CAPACITOR	
C1067	F1G1C104A077	CAPACITOR	
C1068	F1G1C104A077	CAPACITOR	
C1069	F1G1C104A077	CAPACITOR	
C1070	F1G1C104A077	CAPACITOR	
C1071	F1G1C1030008	CAPACITOR	
C1072	F1G1A823A032	CAPACITOR	
C1073	ECJ2FF1A106Z	C 10UF, 10V	
C1074	F1G1A823A032	CAPACITOR	
C1075	F1G1C1030008	CAPACITOR	
C1076	F1G1H1020008	CAPACITOR	
C1077	F1G1C104A077	CAPACITOR	
C1079	F1G1C104A077	CAPACITOR	
C1081	F1G1C104A077	CAPACITOR	
C1082	F1G1H1020008	CAPACITOR	
C1083	EEEB0G101R	E 100UF, 4V	
C1084	F2G1C2200010	CAPACITOR	
C1086	F1G1C822A081	CAPACITOR	
C1090	F1G1C104A077	CAPACITOR	
C1098	ECJ2FF1A106Z	C 10UF, 10V	
C1101	F1G1C104A077	CAPACITOR	
C1103	F2G1C2200010	CAPACITOR	
C1104	F1H1C105A008	CAPACITOR	
C1105	EEEB0G101R	E 100UF, 4V	
C1106	ECJ2FF1A106Z	C 10UF, 10V	
C1107	ECJ2FF1A106Z	C 10UF, 10V	
C1110	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1111	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1113	F1G1C104A077	CAPACITOR	
C1115	F2G1C2200010	CAPACITOR	
C1116	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1118	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1119	ECJ1VC1H331J	CAPACITOR	
C1120	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1121	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1123	F1H1C105A008	CAPACITOR	
C1124	F1G1C104A077	CAPACITOR	
C1125	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1126	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1127	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1128	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1129	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1130	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1133	F1H1C105A008	CAPACITOR	
C1134	F1G1C104A077	CAPACITOR	
C1135	F1G1C104A077	CAPACITOR	
C1139	ECJ0EB1H102K	C 1000PF, 50V	
C1141	ECJ1VF1A225Z	CAPACITOR	
C1143	F1G1C104A077	CAPACITOR	
C1144	ECJ1VC1H100C	C 10PF, 50V	

Ref. No.	Part No.	Part Name & Description	Remarks
C1145	ECJ1VC1H100C	C 10PF, 50V	
C1146	EEH8B0G101R	E 100UF, 4V	
C1148	F1G1C104A077	CAPACITOR	
C1149	F1G1C104A077	CAPACITOR	
C1152	F1G1H1020008	CAPACITOR	
C1153	F1G1C104A077	CAPACITOR	
C1154	F1G1C104A077	CAPACITOR	
C1159	F1G1C104A077	CAPACITOR	
C1160	F1G1C104A077	CAPACITOR	
C1161	F1G1C104A077	CAPACITOR	
C1162	F1G1C104A077	CAPACITOR	
C1163	F1G1C104A077	CAPACITOR	
C1164	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1165	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1166	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1167	F1G1C104A077	CAPACITOR	
C1168	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1169	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1170	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1171	F1G1H1020008	CAPACITOR	
C1172	F1G1H1020008	CAPACITOR	
C1173	F1G1H1020008	CAPACITOR	
C1176	F1G1C104A077	CAPACITOR	
C1177	F1G1C104A077	CAPACITOR	
C1178	F1G1C104A077	CAPACITOR	
C1179	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1180	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1181	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1186	F1G1C104A077	CAPACITOR	
C1187	F1G1C104A077	CAPACITOR	
C1188	F2G0J4700010	CAPACITOR	
C1189	ECJ1VF1A225Z	CAPACITOR	
C1190	F2G0J4700010	CAPACITOR	
C1191	F1H1A1050029	CAPACITOR	
C1192	F1G1C104A077	CAPACITOR	
C1193	F1G1H1020008	CAPACITOR	
C1194	ECJ1VF1A225Z	CAPACITOR	
C1196	F1G1C104A077	CAPACITOR	
C1197	ECJ2FF1A106Z	C 10UF, 10V	
C1198	F1G1C104A077	CAPACITOR	
C1199	F1G1H1020008	CAPACITOR	
C1200	F1G1C104A077	CAPACITOR	
C1201	F1G1C104A077	CAPACITOR	
C1202	F1G1C104A077	CAPACITOR	
C1203	F1G1C104A077	CAPACITOR	
C1204	F1G1C104A077	CAPACITOR	
C1205	F1G1C104A077	CAPACITOR	
C1206	F1G1C104A077	CAPACITOR	
C1207	F1G1C104A077	CAPACITOR	
C1209	F1G1C104A077	CAPACITOR	
C1210	F1G1C104A077	CAPACITOR	
C1211	F1G1C104A077	CAPACITOR	
C1212	F1G1C104A077	CAPACITOR	
C1213	F1G1C104A077	CAPACITOR	
C1214	F1G1C104A077	CAPACITOR	
C1215	F1G1C104A077	CAPACITOR	
C1216	F1G1C104A077	CAPACITOR	
C1217	F1G1C104A077	CAPACITOR	
C1219	F1G1C104A077	CAPACITOR	
C1220	F1G1C104A077	CAPACITOR	
C1221	F1G1C104A077	CAPACITOR	
C1223	ECJ2FF1A106Z	C 10UF, 10V	
C1232	F1G1C104A077	CAPACITOR	
C1237	F1G1C104A077	CAPACITOR	
C1238	F1G1C104A077	CAPACITOR	
C1239	F1G1C104A077	CAPACITOR	
C1243	F1G1C104A077	CAPACITOR	
C1245	F1G1C104A077	CAPACITOR	
C1246	F1G1C104A077	CAPACITOR	
C1247	F2G1A3300007	CAPACITOR	
C1248	F1G1H1020008	CAPACITOR	
C1249	EEH8B0G101R	E 100UF, 4V	
C1250	F1G1C104A077	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1251	F1G1C104A077	CAPACITOR	
C1252	F1G1C104A077	CAPACITOR	
C1253	F1G1C104A077	CAPACITOR	
C1254	F1G1C104A077	CAPACITOR	
C1255	F1G1C104A077	CAPACITOR	
C1256	F1G1C104A077	CAPACITOR	
C1257	F1G1C104A077	CAPACITOR	
C1258	F1G1C104A077	CAPACITOR	
C1259	F1G1C104A077	CAPACITOR	
C1260	F1G1C104A077	CAPACITOR	
C1261	F1G1C104A077	CAPACITOR	
C1262	F1G1C104A077	CAPACITOR	
C1263	F1G1C104A077	CAPACITOR	
C1264	F1G1C104A077	CAPACITOR	
C1265	F1G1C104A077	CAPACITOR	
C1266	F1G1C104A077	CAPACITOR	
C1267	F1G1C104A077	CAPACITOR	
C1268	F1G1C104A077	CAPACITOR	
C1269	F1G1C104A077	CAPACITOR	
C1270	F1G1C104A077	CAPACITOR	
C1271	EEH8B0G101R	E 100UF, 4V	
C1315	F1G1C104A077	CAPACITOR	
C1348	F1G1C104A077	CAPACITOR	
C1349	F1G1C104A077	CAPACITOR	
C1351	F1G1C104A077	CAPACITOR	
C1352	F1G1C104A077	CAPACITOR	
C1370	F1G1C104A077	CAPACITOR	
C1371	F2G1E4R70007	CAPACITOR	
C1373	F2G1E4R70007	CAPACITOR	
C1374	F2G1A101A029	CAPACITOR	
C1375	EEH8B0G101R	E 100UF, 4V	
C1376	EEH8B0G101R	E 100UF, 4V	
C1378	F1G1C104A077	CAPACITOR	
C1379	ECJ2FF1C475Z	CAPACITOR	
C1387	F1H1A1050029	CAPACITOR	
C1401	F1H1A1050029	CAPACITOR	
C1402	F1G1H1020008	CAPACITOR	
C1409	F1G1H1020008	CAPACITOR	
C1430	F1G1C104A077	CAPACITOR	
C1431	F1G1C104A077	CAPACITOR	
C1432	F1G1C104A077	CAPACITOR	
C1433	F2G1E3300010	CAPACITOR	
C1434	F2G1E3300010	CAPACITOR	
C1435	F2G1E3300010	CAPACITOR	
C1436	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1437	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1438	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1439	F2G1E3300010	CAPACITOR	
C1440	F2G1E3300010	CAPACITOR	
C1441	F2G1E3300010	CAPACITOR	
C1442	F1G1C104A077	CAPACITOR	
C1443	F1G1C104A077	CAPACITOR	
C1444	F1G1C104A077	CAPACITOR	
C1445	F1H1H333A220	CAPACITOR	
C1446	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1447	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1448	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1449	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1450	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1451	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1452	F1G1C104A077	CAPACITOR	
C1453	F1G1C104A077	CAPACITOR	
C1454	F1G1C104A077	CAPACITOR	
C1455	F1G1C104A077	CAPACITOR	
C1456	F1G1C104A077	CAPACITOR	
C1457	F1G1C104A077	CAPACITOR	
C1458	F1G1C104A077	CAPACITOR	
C1459	F1G1C104A077	CAPACITOR	
C1460	F1G1C104A077	CAPACITOR	
C1461	F1G1C104A077	CAPACITOR	
C1462	F1G1C104A077	CAPACITOR	
C1463	F1G1C104A077	CAPACITOR	
C1464	F1G1C104A077	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1465	F1G1H1020008	CAPACITOR	
C1467	F1G1C104A077	CAPACITOR	
C1468	F1G1C104A077	CAPACITOR	
C1469	F1G1C104A077	CAPACITOR	
C1470	ECJ2FF1A106Z	C 10UF, 10V	
C1473	F1G1C104A077	CAPACITOR	
C1474	F1G1C104A077	CAPACITOR	
C1475	F1G1C104A077	CAPACITOR	
C1476	F1G1C104A077	CAPACITOR	
C1477	F1G1C104A077	CAPACITOR	
C1478	F1G1C104A077	CAPACITOR	
C1479	EEEB0G101R	E 100UF, 4V	
C1480	F1G1C104A077	CAPACITOR	
C1481	F1G1H1020008	CAPACITOR	
C1492	F1H0J1050012	CAPACITOR	
C1493	ECJ1VB1H103K	C 0.01UF, K, 50V	
C1495	F2G1E3300010	CAPACITOR	
C1497	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1498	F1G1C104A077	CAPACITOR	
C1499	F1G1C104A077	CAPACITOR	
C1500	F1G1C104A077	CAPACITOR	
C1505	ECJ1VF1E104Z	C 0.1UF, Z, 25V	
C1506	F1G1C104A077	CAPACITOR	
C1507	F2G1E3300010	CAPACITOR	
C1512	F1G1C104A077	CAPACITOR	
C1513	F1G1C104A077	CAPACITOR	
C1532	F2G1E3300010	CAPACITOR	
C1533	F1H1C105A008	CAPACITOR	
C1534	ECJ1VB1H152K	CAPACITOR	
C1535	F1H1A1050029	CAPACITOR	
C1536	F1G1C104A077	CAPACITOR	
C1541	F1G1C104A077	CAPACITOR	
C1542	F1G1C104A077	CAPACITOR	
C1543	F1G1C104A077	CAPACITOR	
C1545	F1G1C104A077	CAPACITOR	
C1546	F1G1H1020008	CAPACITOR	
C1547	ECJ2FF1A106Z	C 10UF, 10V	
C1548	F1G1C104A077	CAPACITOR	
C1550	F1G1C1030008	CAPACITOR	
C1551	EEEB0G101R	E 100UF, 4V	
C1552	F1G1C104A077	CAPACITOR	
C1555	F1G1C104A077	CAPACITOR	
C1556	ECJ2FF1A106Z	C 10UF, 10V	
C1581	F1G1C104A077	CAPACITOR	
C1591	F1G1H1020008	CAPACITOR	
C1602	ECJ1VC1H221J	CAPACITOR	
C1604	F1G1C104A077	CAPACITOR	
C1605	F2G0J4700010	CAPACITOR	
C1606	F2G1C2200010	CAPACITOR	
C1607	ECJ1VF1C474Z	CAPACITOR	
C1608	ECJ1VF1C474Z	CAPACITOR	
C1610	F1H1C105A008	CAPACITOR	
C1611	F1H1C105A008	CAPACITOR	
C1613	F1H1C105A008	CAPACITOR	
C1614	F1H1C105A008	CAPACITOR	
C1615	F1H1C105A008	CAPACITOR	
C1616	F1H1C105A008	CAPACITOR	
C1618	ECJ1VB1H472K	C 4700PF, K, 50V	
C1619	ECJ2VB1C224K	CAPACITOR	
C1620	ECJ2VB1C224K	CAPACITOR	
C1621	ECJ1VF1A225Z	CAPACITOR	
C1622	ECJ0EB1H102K	C 1000PF, 50V	
C1623	F1H1H8210002	CAPACITOR	
C1625	ECJ1VB1H332K	CAPACITOR	
C1626	F1G1C104A077	CAPACITOR	
C1627	ECJ1VF1A225Z	CAPACITOR	
C1628	F1G1H1020008	CAPACITOR	
C1629	F1G1C104A077	CAPACITOR	
C1630	F2G0J4700010	CAPACITOR	
C1632	ECJ0EB1H102K	C 1000PF, 50V	
C1633	ECJ1VF1A225Z	CAPACITOR	
C1634	F1G1C104A077	CAPACITOR	
C1636	F1G1H1020008	CAPACITOR	

Ref. No.	Part No.	Part Name & Description	Remarks
C1637	ECJ1VF1A225Z	CAPACITOR	
C1638	ECJ1VF1A225Z	CAPACITOR	
C1639	F1G1H1020008	CAPACITOR	
C1640	F1G1H1020008	CAPACITOR	
C1641	ECJ1VF1A225Z	CAPACITOR	
C1642	ECJ0EB1H102K	C 1000PF, 50V	
C1643	F1G1H1020008	CAPACITOR	
C1644	ECJ1VF1A225Z	CAPACITOR	
C1645	ECJ1VF1A225Z	CAPACITOR	
C1646	F1G1C104A077	CAPACITOR	
C1647	F1G1C104A077	CAPACITOR	
C1648	F1G1C104A077	CAPACITOR	
C1649	F1G1C104A077	CAPACITOR	
C1650	F1G1C104A077	CAPACITOR	
C1651	F1G1C104A077	CAPACITOR	
C1652	F1G1C104A077	CAPACITOR	
C1653	F1G1C104A077	CAPACITOR	
C1654	F1G1C104A077	CAPACITOR	
C1655	F1G1C104A077	CAPACITOR	
C1656	F1G1C104A077	CAPACITOR	
C1657	F1G1C104A077	CAPACITOR	
C1658	F1G1C104A077	CAPACITOR	
C1659	F1G1C104A077	CAPACITOR	
C1660	F1G1C104A077	CAPACITOR	
C1661	F2G0J4700010	CAPACITOR	
C1662	F1G1C104A077	CAPACITOR	
C1663	F2G0J4700010	CAPACITOR	
C1664	F1G1C104A077	CAPACITOR	
C1665	F1G1C104A077	CAPACITOR	
C1666	F1G1C104A077	CAPACITOR	
C1667	F1G1C104A077	CAPACITOR	
C1668	F1G1C104A077	CAPACITOR	
C1669	F1G1C104A077	CAPACITOR	
C1670	F1G1C104A077	CAPACITOR	
C1671	F1G1C104A077	CAPACITOR	
C1672	F1G1C104A077	CAPACITOR	
C1673	F1G1C104A077	CAPACITOR	
C1674	F1G1C104A077	CAPACITOR	
C1675	F1G1C104A077	CAPACITOR	
C1676	F1G1C104A077	CAPACITOR	
C1677	F1G1C104A077	CAPACITOR	
C1678	F1G1C104A077	CAPACITOR	
C1679	F1G1C104A077	CAPACITOR	
C1680	F1G1C104A077	CAPACITOR	
C1681	F1G1C104A077	CAPACITOR	
C1682	F1G1C104A077	CAPACITOR	
C1683	F1G1C104A077	CAPACITOR	
C1684	F1G1C104A077	CAPACITOR	
C1685	F1G1C104A077	CAPACITOR	
C1686	F1G1C104A077	CAPACITOR	
C1687	F1G1C104A077	CAPACITOR	
C1688	F1G1C104A077	CAPACITOR	
C1695	F1G1C104A077	CAPACITOR	
C1696	F1G1C104A077	CAPACITOR	
C1697	F1G1C104A077	CAPACITOR	
C1698	F1G1C104A077	CAPACITOR	
C1699	F1G1C104A077	CAPACITOR	
C1700	ECJ1VF1A225Z	CAPACITOR	
C1701	F1G1C104A077	CAPACITOR	
C1702	F1G1H1020008	CAPACITOR	
C1703	EEEB0G101R	E 100UF, 4V	
C1705	F2G0J3300014	CAPACITOR	
C1706	F1G1H1020008	CAPACITOR	
C1708	EEEB0G101R	E 100UF, 4V	
C1709	F1G1C104A077	CAPACITOR	
C2001	ECJ0EF1C104Z	C 0.1UF, 16V	
C2002	ECJ0EF1C104Z	C 0.1UF, 16V	
C2003	ECJ2FF1A106Z	C 10UF, 10V	
C2022	ECJ0EF1C104Z	C 0.1UF, 16V	
C2024	ECJ0EF1C104Z	C 0.1UF, 16V	
C2025	ECJ2FF1A106Z	C 10UF, 10V	
C2026	ECJ2FF1A106Z	C 10UF, 10V	
C9101	ECQU2A104MLA	CAPACITOR	△

Ref. No.	Part No.	Part Name & Description	Remarks
C9102	F1BAH1020016	CAPACITOR	△
C9103	F1BAH1020016	CAPACITOR	△
C9106	ECQU2A473MLA	CAPACITOR	
C9603	F0CZZ4740003	CAPACITOR (B-PCB)	
C9610	F0C2E1050008	CAPACITOR (B-PCB)	
C9617	F0C3C4720003	CAPACITOR	
C9618	F0C2J1540007	CAPACITOR (B-PCB)	
C9619	F0C2J1540007	CAPACITOR (B-PCB)	
[OTHERS]			
A1	K1MN36BA0178	36P CONNECTOR	
A2	K1MN36BA0178	36P CONNECTOR	
A3	K1MN36BA0178	36P CONNECTOR	
A4	K1KA07BA0086	7P CONNECTOR	
A6	K1KA15BA0051	15P CONNECTOR	
A7	K1KA02BA0047	2P CONNECTOR	
A8	K1MY12BA0008	12P CONNECTOR	
A10	K1KA03BA0086	3P CONNECTOR	
A15	K1KA03BA0047	3P CONNECTOR	
A16	K1KA03BA0047	3P CONNECTOR	
A17	K1KA03BA0047	3P CONNECTOR	
A18	K1KA04BA0047	4P CONNECTOR	
A20	K1KA03BA0047	3P CONNECTOR	
A23	K1KA09BA0086	9P CONNECTOR	
H1	K1KA09AA0200	9P CONNECTOR	
H2	K1MY06BA0007	6P CONNECTOR	
K1	K1KA02A00626	2P CONNECTOR	△
K2	K4CF01000033	CONNECTOR	
M1	K1KA06BA0014	6P CONNECTOR	
M2	K1KA02BA0014	CONNECTOR	
R1	K1KB07AA0087	7P CONNECTOR	
S1	K1MN12BA0116	12P CONNECTOR	
S2	K1KA02BA0047	2P CONNECTOR	
S3	K1KA07A00170	7P CONNECTOR	
CF2002	D4CC1103A037	THERMISTOR	
CF2003	D4CC1103A037	THERMISTOR	
F9101-1	K3GE1ZA00010	FUSE HOLDER	
F9101-2	K3GE1ZA00010	FUSE HOLDER	
F9101	K5D632BNA005	FUSE	△
HE2201	B4ABA0000009	HALL DEVICE	
JK1001	K1CB205B0007	S-VIDE/VIDEO IN TERMINAL	
JK1002	K2HA306B0103	Y PB PR IN	
JK1003	K1FA119E0004	HDMI IN	
JK1005	K1FB115B0102	RGB1 IN TERMINAL	
JK1006	K1CB208BA002	RS232C I/F TERMINAL	
JK1007	K1FA119E0004	TERMINAL	
JK1008	K1FA119E0004	TERMINAL	
JK9101	TXAWC01VKD3	TERMINAL	△
JS1004	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1005	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1012	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1013	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1020	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1021	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1022	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1023	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1024	ERJ6GEY0R00	M 0 OHM,J,1/10W	
JS1025	ERJ6GEY0R00	M 0 OHM,J,1/10W	
MC201	ER0S2THF2371	RESISTOR	
PC2001	B3JB00000023	PHOTO COUPLER	
RM2021	B3RAD0000141	REMOTE RECEIVER PLATE	
S9602	A9BZ00000013	SPARK GAP (B-PCB)	
SW2001	EVQPLHA15	SWITCH	
SW2002	EVQPLHA15	SWITCH	
SW2003	EVQPLHA15	SWITCH	
SW2004	EVQPLHA15	SWITCH	
SW2005	EVQPLHA15	SWITCH	
SW2006	EVQPLHA15	SWITCH	
SW2007	EVQPLHA15	SWITCH	
SW2008	EVQPLHA15	SWITCH	
SW2009	EVQPLHA15	SWITCH	

Ref. No.	Part No.	Part Name & Description	Remarks
SW9101	K0AAKA000014	SWITCH	△
SW9601	K0BDB0000081	SWITCH (B-PCB)	△
T9604	G4F3A0000004	TRANS (B-PCB)	△
X1001	H0J286500027	CRYSTAL	
X1005	H0J829400001	CRYSTAL	
ZA2001	K4CZ01000027	TERMINAL	
ZA2002	K4CZ01000027	TERMINAL	
ZA2021	K4CZ01000027	TERMINAL	
ZA9101	K9ZZ00000424	TERMINAL (EARTH LUG)	
ZA9102	K9ZZ00000424	TERMINAL (EARTH LUG)	
RTL	TNPA4064	CIRCUIT BOARD (S)	△
RTL	TNPA4065	CIRCUIT BOARD (H)	△
RTL	TNPA4075	CIRCUIT BOARD (R)	△
RTL	TNPA4106	CIRCUIT BOARD (M1)	△
RTL	TNPA4218	CIRCUIT BOARD (M2)	△
RTL	TNPA4466	CIRCUIT BOARD (K)	△
RTL	TXANP01VKF7	CIRCUIT BOARD (A)	△
	ETX1MM685MC	CIRCUIT BOARD (P)	△
	TXANP03VKD3	BALLAST UNIT	△